UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
Form 10-K

(Mark One)

X **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2023

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from ______ to______
Commission file number 1-1070

OLIN CORPORATION
(Exact name of registrant as specified in its charter)

Virginia	**13-1872319**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
190 Carondelet Plaza, Suite 1530, Clayton, MO	**63105**
(Address of principal executive offices)	(Zip code)

Registrant's telephone number, including area code: (314) 480-1400

Securities registered pursuant to Section 12(b) of the Act:

Title of each class:	Trading symbol:	Name of each exchange on which registered:
Common Stock, $1.00 par value per share	OLN	New York Stock Exchange

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes X No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No X

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes X No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes X No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. Large accelerated filer X Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐ Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. X

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No X

As of June 30, 2023, the aggregate market value of registrant's common stock, $1.00 par value per share, held by non-affiliates of registrant was approximately $6,447,684,308 based on the closing sale price as reported on the New York Stock Exchange.

As of January 31, 2024, 120,200,964 shares of the registrant's common stock were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the following document are incorporated by reference in this Form 10-K as indicated herein:

Document	Part of 10-K into which incorporated
Proxy Statement relating to Olin's Annual Meeting of Shareholders to be held in 2024	Part III

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PART I

Item 1. BUSINESS

GENERAL

Olin Corporation (Olin) is a Virginia corporation, incorporated in 1892, having its principal executive offices in Clayton, MO. We are a leading vertically integrated global manufacturer and distributor of chemical products and a leading U.S. manufacturer of ammunition. Our operations are concentrated in three business segments: Chlor Alkali Products and Vinyls, Epoxy and Winchester. All of our business segments are capital-intensive manufacturing businesses. The Chlor Alkali Products and Vinyls segment manufactures and sells chlorine and caustic soda, ethylene dichloride and vinyl chloride monomer, methyl chloride, methylene chloride, chloroform, carbon tetrachloride, perchloroethylene, hydrochloric acid, hydrogen, bleach products and potassium hydroxide, which represented 58% of 2023 sales. The Epoxy segment produces and sells a full range of epoxy materials and precursors, including aromatics (acetone and phenol), allyl chloride, epichlorohydrin, liquid epoxy resins, solid epoxy resins and systems and growth products such as converted epoxy resins and additives, which represented 20% of 2023 sales. The Winchester segment produces and sells sporting ammunition, reloading components, small caliber military ammunition and components, industrial cartridges and clay targets, which represented 22% of 2023 sales. See our discussion of our segment disclosures contained in Item 7—"Management's Discussion and Analysis of Financial Condition and Results of Operations."

GOVERNANCE

We maintain a website at www.olin.com. Our reports on Form 10-K, Form 10-Q and Form 8-K, as well as amendments to those reports, are available free of charge on our website, as soon as reasonably practicable after we file the reports with the Securities and Exchange Commission (SEC). Also, a copy of our electronically filed materials can be obtained at www.sec.gov. Our Principles of Corporate Governance, Committee Charters and Code of Conduct are available on our website at www.olin.com in the Leadership & Governance Section under Governance Documents and Committees.

In May 2023, our Chief Executive Officer (CEO) executed the annual Section 303A.12(a) CEO Certification required by the New York Stock Exchange (NYSE), certifying that he was not aware of any violation of the NYSE's corporate governance listing standards by us. Additionally, our Chief Executive Officer and Chief Financial Officer (CFO) executed the required Sarbanes-Oxley Act of 2002 Sections 302 and 906 certifications relating to this Annual Report on Form 10-K, which are filed with the SEC as exhibits to this Annual Report on Form 10-K.

PRODUCTS, SERVICES AND STRATEGIES

Chlor Alkali Products and Vinyls

Products and Services

We have been involved in the chlor alkali industry for approximately 130 years and consider ourselves the leading global chlor alkali and derivatives producer. Chlorine, caustic soda and hydrogen are co-produced commercially by the electrolysis of salt at a fixed ratio of 1.0 ton of chlorine to 1.1 tons of caustic soda and 0.03 tons of hydrogen. The industry refers to this as an Electrochemical Unit or ECU.

Chlorine is used as a raw material in the production of thousands of products, including vinyls, urethanes, epoxy, water treatment chemicals and a variety of other organic and inorganic chemicals. A significant portion of chlorine production is consumed in the manufacturing of vinyls intermediates, ethylene dichloride (EDC) and vinyl chloride monomer (VCM), both of which our Chlor Alkali Products and Vinyls segment produces. A large portion of our EDC production is utilized in the production of VCM, but we are also one of the largest global participants in merchant EDC sales. In addition to marketing Olin produced EDC, we also purchase EDC for re-sale on a global basis. EDC and VCM are precursors for polyvinyl chloride (PVC), a material used in applications such as vinyl siding, pipe, pipe fittings and automotive parts.

Our Chlor Alkali Products and Vinyls segment is one of the largest global marketers of caustic soda, including caustic soda produced by Olin, and globally produced material purchased by Olin for re-sale. The diversity of caustic soda sourcing allows us to cost effectively supply customers worldwide. Caustic soda has a wide variety of end-use applications, the largest of which includes water treatment, alumina, pulp and paper, urethanes, detergents and soaps and a variety of other organic and inorganic chemicals.

Our Chlor Alkali Products and Vinyls segment also includes our chlorinated organics business, which is a significant global producer of chlorinated organic products that include chloromethanes (methyl chloride, methylene chloride, chloroform and carbon tetrachloride) and chloroethanes (perchloroethylene). Our chlorinated organics business participates in both the solvent segment and the intermediate segment of the global chlorocarbon industry with a focus on sustainable applications and in applications where we can benefit from our cost advantages. Intermediate products are used as feedstocks in the production of fluoropolymers, fluorocarbon refrigerants and blowing agents, silicones, cellulosics and agricultural chemicals. Solvent products are sold into end uses such as surface preparation, dry cleaning, pharmaceuticals and regeneration of refining catalysts. This business's unique technology allows us to utilize both hydrogen chloride, the gaseous form of hydrochloric acid, and chlorinated hydrocarbon byproducts (RCls), produced by our other production processes, as raw materials in an integrated system.

We also manufacture and sell other chlor alkali-related products, including hydrochloric acid, sodium hypochlorite (bleach) and potassium hydroxide. These products, along with chlorinated organics products and epoxy resins, generally consume chlorine as a raw material creating downstream applications that upgrade the value of the ECU. Our industry leadership in the production of chlorinated organics and epoxy resins, as well as other products, offers us multiple outlets for our captive chlorine.

Our products are delivered by pipeline, marine vessel, deep-water and coastal barge, railcar and truck. We own, operate, and lease a geographically dispersed terminal infrastructure at our production sites and other locations that expand our geographic coverage and enhance our service capabilities. At our largest integrated product sites, our deep-water access allows us to reach global markets.

Blue Water Alliance (BWA), our joint venture with Mitsui & Co., Ltd. (Mitsui), began operations during 2023. BWA is an independent global trader of ECU-based derivatives, focused on globally traded caustic soda and ethylene dichloride. Olin holds 51% interest and exercises control in BWA, and the joint venture is consolidated in our financial statements with Mitsui's 49% interest in BWA classified as noncontrolling interest. All intercompany accounts and transactions are eliminated in consolidation. BWA brings together Mitsui's industry-leading global logistics, long-established supplier and customer relationships, and breadth of product portfolio with Olin's scale, North American export capability, extensive global terminal network, and production flexibility across the ECU portfolio.

Our Chlor Alkali Products and Vinyls segment currently maintains a reliable supply of key raw materials. Electricity, salt, ethylene and methanol are the primary raw materials for our products. Electricity is the single largest raw material component in the production of Chlor Alkali Products and Vinyls products. Approximately 72% of our electricity is generated from natural gas or hydroelectric sources. We satisfy our electricity needs through a combination of market power, long-term contracts and the operation of our own power assets, which allow for cost differentiation at specific U.S. manufacturing sites. Approximately 74% of our salt requirements are met by internal supply. Ethylene is primarily supplied for the vinyls business under a long-term supply arrangement whereby we receive ethylene at integrated producer economics. Methanol is primarily sourced from large domestic and international producers. The high-volume nature of the chlor alkali industry places emphasis on cost management, and we believe that our scale, integration and raw material positions make us one of the low-cost producers in the industry.

The following table lists the principal products and services of our Chlor Alkali Products and Vinyls segment.

Products & Services	***Major End Uses***	***Plants & Facilities***	***Major Raw Materials & Components for Products/Services***
Chlorine/caustic soda	Pulp & paper processing, chemical manufacturing, water purification, vinyl chloride manufacturing, bleach, swimming pool chemicals and urethane chemicals	Becancour, Canada Charleston, TN Freeport, TX McIntosh, AL Niagara Falls, NY Plaquemine, LA St. Gabriel, LA	Salt, electricity
Ethylene dichloride/vinyl chloride monomer	Precursor to polyvinyl chloride used in vinyl siding, plumbing and automotive parts	Freeport, TX Plaquemine, LA	Chlorine, ethylene, ethylene dichloride
Chlorinated organics intermediates	Used as feedstocks in the production of fluoropolymers, fluorocarbon refrigerants and blowing agents, silicones, cellulosic and agricultural chemicals	Freeport, TX Plaquemine, LA Stade, Germany	Chlorine, ethylene dichloride, hydrogen chloride, methanol, RCls
Chlorinated organic solvents	Surface preparation, dry cleaning and pharmaceuticals	Freeport, TX Plaquemine, LA Stade, Germany	Chlorine, ethylene dichloride, hydrogen chloride, methanol, RCls

Products & Services	*Major End Uses*	*Plants & Facilities*	*Major Raw Materials & Components for Products/Services*
Sodium hypochlorite (bleach)	Household cleaners, laundry bleaching, swimming pool sanitizers, semiconductors, water treatment, textiles, pulp & paper and food processing	Augusta, GA Becancour, Canada Charleston, TN Freeport, TX Henderson, NV Lemont, IL McIntosh, AL* Niagara Falls, NY* Santa Fe Springs, CA	Caustic soda, chlorine
Hydrochloric acid	Steel, oil & gas, plastics, organic chemical synthesis, water & wastewater treatment, brine treatment, artificial sweeteners, pharmaceuticals, food processing and ore & mineral processing	Becancour, Canada Charleston, TN Freeport, TX McIntosh, AL Niagara Falls, NY	Chlorine, hydrogen
Potassium hydroxide	Fertilizer manufacturing, soaps, detergents & cleaners, battery manufacturing, food processing chemicals and deicers	Charleston, TN	Electricity, potassium chloride
Hydrogen	Fuel source, hydrogen fuel cells, hydrogen peroxide and hydrochloric acid	Becancour, Canada Charleston, TN Freeport, TX McIntosh, AL Niagara Falls, NY Plaquemine, LA St. Gabriel, LA	Electricity, salt

* Includes low salt, high strength bleach manufacturing.

Strategies

Maximize Returns to the ECU. Leverage our diverse and flexible chlor alkali derivatives portfolio via our strategic operating model to continually mitigate exposure and maximize value from the entire ECU by managing our production rates to the prevailing weaker side of the ECU.

Participate in Global Trade Flow of the Products we Market. Access excess products available from global trade, complementing our internally produced products to serve our growing customer demand at the highest value.

Continually Drive Down Costs through Productivity. Our advantaged cost position is derived from low-cost energy, scale, integration, and deep water ports. Maintaining a strong discipline in areas such as cost management, capital outlays, and asset maintenance is key to creating greater operating flexibility to maximize returns to the ECU.

Epoxy

Products and Services

The Epoxy business was one of the first major manufacturers of epoxy products, and has continued to build on more than half a century of history through product innovation and technical excellence. We believe the Epoxy segment is one of the largest fully integrated global producers of epoxy resins, curing agents and intermediates. The Epoxy segment's cost position benefits from integration into low-cost feedstocks (including chlorine, caustic soda, allylics and aromatics). The Epoxy segment produces and sells a full range of epoxy materials and precursors, including aromatics (acetone and phenol), allylics, such as allyl chloride (Allyl) and epichlorohydrin (EPI), resins such as liquid epoxy resins (LER) and solid epoxy resins (SER) and systems and growth platform products such as converted epoxy resins (CER) and additives.

The Epoxy segment serves a diverse array of applications, many of which are focused on improving sustainability and lowering greenhouse emissions, including wind energy, electrical laminates, consumer goods and composites, as well as numerous applications in civil engineering and protective coatings. The Epoxy segment has important relationships with established customers, some of which span decades. The segment sells primarily in North America and Western Europe. The segment products are delivered primarily by marine vessel, deep-water and coastal barge, railcar and truck.

Allyl is used not only as a feedstock in the production of EPI, but also as a chemical intermediate in multiple industries and applications, including water purification chemicals. EPI is primarily produced as a feedstock for use in the business's epoxy resins and is also sold in the merchant market. LER is manufactured in liquid form and cures with the addition of a hardener into a three-dimensional thermoset solid material, offering a distinct combination of structural strength, adhesion, electrical insulation, thermal or chemical resistance and corrosion protection that is well-suited to coatings and composites applications. SER is processed further with bisphenol, which is produced internally to meet specific end-market applications. While LER and SER are sold externally, a significant portion of LER production is further converted through our systems and growth platform into CER and other additive products where value-added modifications produce higher margin resins for specific customer applications.

The Epoxy segment's principal raw materials are chlorine, caustic soda, benzene, propylene and aromatics, which consist of phenol and acetone. Our Epoxy segment maintains a reliable supply of certain key raw materials, such as benzene and propylene. The Epoxy segment's production economics benefit from its integration into chlor alkali and aromatics which are key inputs in epoxy production. This fully integrated structure provides both access to low-cost materials and significant operational flexibility. The Epoxy segment operates an integrated aromatics production chain producing phenol and acetone for internal consumption and external sale. The Epoxy segment's consumption of chlorine enables the Chlor Alkali Products and Vinyls segment to generate caustic soda production and sales. Chlorine and caustic soda used in our Epoxy segment are transferred at cost from the Chlor Alkali Products and Vinyls segment.

The following table lists the principal products and services of our Epoxy segment.

Products & Services	***Major End Uses***	***Plants & Facilities***	***Major Raw Materials & Components for Products/Services***
Allylics (allyl chloride, epichlorohydrin and glycerin) & aromatics (acetone and phenol)	Manufacturers of polymers, resins and other plastic materials and water purification	Freeport, TX Stade, Germany Terneuzen, Netherlands[(1)]	Benzene, caustic soda, chlorine, propylene
Resins: liquid epoxy resin/solid epoxy resin	Adhesives, marine and protective coatings, composites and flooring	Freeport, TX Guaruja, Brazil Stade, Germany	Bisphenol, caustic soda, epichlorohydrin
Systems and Growth Platforms: Converted epoxy resins and additives	Electrical laminates, paint and coatings, wind blades, electronics and construction	Baltringen, Germany Freeport, TX Guaruja, Brazil Gumi, South Korea[(1)] Pisticci, Italy Rheinmunster, Germany Roberta, GA Stade, Germany Zhangjiagang, China	Liquid epoxy resins, solid epoxy resins

(1) As part of our restructuring activities, these facilities ceased manufacturing operations during 2023.

<u>Strategies</u>

Focus on Return to the ECU. The Epoxy segment is focused on maximizing return to the ECU by targeting participation and improving margins in EPI, LER, and derivative applications with the highest return to the ECU.

Continually Drive Down Costs through Productivity. The Epoxy segment continues to drive productivity cost improvements through the entire supply chain to optimize our EPI and LER cost position in the Americas and Europe.

Focus on Systems and Growth Platforms. The Epoxy segment is focused on expanding our market participation in higher value add platform products to align with growing end-use markets.

Winchester

<u>Products and Services</u>

In 2024, Winchester is in its 158th year of operation and its 94th year as part of Olin. Winchester is a premier developer and manufacturer of small caliber ammunition for sale to domestic and international retailers (commercial customers), law enforcement agencies and domestic and international militaries. We believe we are a leading U.S. producer of ammunition for recreational shooters, hunters, law enforcement agencies and the U.S. Armed Forces. Winchester also manufactures industrial products that have various applications in the construction industry and, beginning October 2023, additionally manufactures clay targets for recreational and competitive shooters.

On October 1, 2023, Olin acquired the assets of White Flyer Targets, LLC (White Flyer) from Reagent Diversified Holdings, Inc. (Reagent) for $63.9 million. White Flyer is North America's preeminent leader in recreational trap, skeet, and sporting clay targets. White Flyer was combined with the Winchester Ammunition business.

On October 1, 2020, Winchester assumed full management and operational control of the Lake City Army Ammunition Plant (Lake City) in Independence, MO. The U.S. Army selected Winchester to operate and manage Lake City in September 2019. The contract is for the production of small caliber military ammunition, including 5.56mm, 7.62mm, and .50 caliber rounds, as well as certain cartridges and casings. The contract also allows for the production of certain ammunition for commercial customers. The contract has an initial term of seven years and may be extended by the U.S. Army for up to three additional years.

Our legendary Winchester® product line includes all major gauges and calibers of shotgun shells, rimfire and centerfire ammunition for pistols and rifles, reloading components and industrial cartridges. We believe we are a leading U.S. supplier of small caliber commercial ammunition.

Winchester has strong relationships throughout the sales and distribution chain and strong ties to traditional dealers, distributors, and gun clubs. Winchester has also built its business with key high-volume mass merchants and specialty sporting goods and outdoor merchandise retailers. Winchester has consistently developed industry-leading ammunition, which is recognized in the industry for manufacturing excellence, design innovation and consumer value.

During 2022 and 2023, the U.S. Army awarded Winchester the second and third years of a five-year contract to manufacture 5.56 mm, 7.62 mm and .50 caliber rifle ammunition under the third consecutive "Second Source" ammunition contract Winchester has received from the U.S. Army.

During 2022, the U.S. Army awarded Winchester a new five-year pistol contract for .38 caliber, .45 caliber and 9mm handgun ammunition, maintaining Winchester's longstanding position as the leading supplier of pistol ammunition to the U.S. military.

During 2022, the U.S. Army awarded Winchester contracts to support the 6.8mm Next Generation Squad Weapons (NGSW) program at Lake City, including the design of the NGSW ammunition manufacturing facility. During 2023, the U.S. Army awarded Winchester a contract to manufacture, test and deliver five million rounds of 6.8mm ammunition.

During 2023, the U.S. Army awarded Winchester contracts to develop and manufacture multiple high-performance cartridges at Lake City, including nearly two million rounds of .50 Caliber Saboted Light Armor Penetrator (SLAP) ammunition.

Winchester's new ammunition products continue to receive awards from major industry publications and organizations, with recent awards including *American Rifleman* magazine's Golden Bullseye Award as "Ammunition Product of the Year" in 2022 and *Guns & Ammo* magazine's "Ammunition of the Year" award in 2021. The National Wild Turkey Federation chose Winchester to receive its 2024 Corporate Achievement Award in recognition of Winchester's support of wild turkey conservation and the preservation of hunting heritage.

Winchester purchases raw materials such as copper-based strip and ammunition cartridge case cups and lead from vendors, pursuant to multi-year contracts, based on a conversion charge or premium. These conversion charges or premiums are in addition to the market prices for metal as posted on exchanges such as the Commodity Exchange, or COMEX, and London Metals Exchange, or LME. Winchester's other main raw material is propellant, which is purchased predominantly from one of the U.S.'s largest propellant suppliers.

The following table lists the principal products and services of our Winchester segment.

Products & Services	***Major End Uses***	***Plants & Facilities***	***Major Raw Materials & Components for Products/Services***
Winchester® sporting ammunition (shotshells, small caliber centerfire & rimfire ammunition)	Hunters, competitive and recreational shooters, law enforcement agencies	East Alton, IL Independence, MO* Oxford, MS	Brass, lead, steel, plastic, propellant and explosives
Small caliber military ammunition	Infantry and mounted weapons	East Alton, IL Independence, MO* Oxford, MS	Brass, lead, propellant, explosives
Industrial products (8-gauge loads & powder-actuated tool loads)	Maintenance applications in power & concrete industries, powder-actuated tools in construction industry	East Alton, IL Oxford, MS	Brass, lead, plastic, propellant, explosives
White Flyer clay targets	Competitive and recreational shooters	Webb City, MO Dalton, GA Knox, IN San Bernardino, CA Coal Township, PA	Limestone, pitch, sulfur, calcium stearate

*Government-owned, contractor-operated (GOCO) facility

Strategies

Maximize Existing Strengths. Winchester will increase our value by strengthening our leadership position in small caliber ammunition through all of the customer segments that we serve – Commercial, Military, Law Enforcement, and Industrial. Through our Shoot United™ strategic initiative, Winchester will focus on promoting shooting sports and drive increased participation. With one of the world's largest small caliber ammunition manufacturing footprints, we will leverage employee engagement, engineering, and process excellence across our three production sites.

Innovative Solutions. Winchester will continue building on our strong reputation as an industry innovator with a long record of meeting the needs of recreational shooters, first responders, and the modern warfighter. We will drive value for our business through developing market driven products and delivering engineered solutions for our customers.

Productivity Improvement. Winchester will leverage our continuous improvement process to increase productivity by optimizing our people, processes, and equipment. We will continue to modernize our facilities and equipment for productivity, improved safety and environmental impact.

INTERNATIONAL OPERATIONS

Olin has an international presence, including the geographic regions of Europe, Asia Pacific and Latin America. Approximately 33% of Olin's 2023 sales were generated outside of the U.S., including 32% of our Chlor Alkali Products and Vinyls 2023 segment sales, 57% of our Epoxy 2023 segment sales and 11% of our Winchester 2023 segment sales. See Note 20 "Segment Information" of the notes to consolidated financial statements contained in Item 8, for geographic segment data. We are incorporating our segment information from that Note into this section of our Form 10-K.

CUSTOMERS AND DISTRIBUTION

Products we sell to industrial or commercial users or distributors for use in the production of other products constitute a major part of our total sales. We sell some of our products, such as epoxy resins, caustic soda and sporting ammunition, to a large number of users or distributors, while we sell other products, such as chlorine and chlorinated organics, in substantial quantities to a relatively small number of industrial users. During 2023, no single customer accounted for more than 10% of sales.

We market most of our products and services primarily through our sales force and sell directly to various industrial customers, mass merchants, retailers, wholesalers, gun clubs, other distributors and the U.S. Government and its prime contractors.

Sales to all U.S. government agencies and sales under U.S. government contracting activities in total accounted for approximately 9% of sales in 2023. Because we engage in some government contracting activities and make sales to the U.S. government, we are subject to extensive and complex U.S. government procurement laws and regulations. These laws and regulations provide for ongoing government audits and reviews of contract procurement, performance and administration. Failure to comply, even inadvertently, with these laws and regulations and with laws governing the export of munitions and other controlled products and commodities could subject us or one or more of our businesses to civil and criminal penalties, and under certain circumstances, suspension and debarment from future government contracts and the exporting of products for a specified period of time.

BACKLOG

The total amount of estimated backlog was approximately $914 million and $838 million as of January 31, 2024 and 2023, respectively. The backlog orders are associated with contractual orders in our Winchester business. Backlogs in our other businesses are not significant. Backlog is comprised of all open customer orders which have been received, but not yet shipped. The backlog was estimated based on expected volume to be shipped from firm contractual orders, which are subject to customary terms and conditions, including cancellation and modification provisions. Approximately 90% of the contracted backlog as of January 31, 2024, is expected to be fulfilled during 2024, with the remainder expected to be fulfilled during 2025.

COMPETITION

We are in active competition with businesses producing or distributing the same or similar products, as well as, in some instances, with businesses producing or distributing different products designed for the same uses.

Chlor alkali manufacturers in North America, with approximately 16 million tons of chlorine and 17 million tons of caustic soda capacity, account for approximately 15% of worldwide chlor alkali production capacity. In 2023, we have the largest chlor alkali capacity in North America and globally. While the technologies to manufacture and transport chlorine and caustic soda are widely available, the production facilities require large capital investments, and are subject to significant regulatory and permitting requirements. There is a worldwide market for caustic soda, which attracts imports and allows exports depending on market conditions. This industry includes large diversified producers in North America and abroad, including multiple producers located in China. Other large chlor alkali producers in North America include The Occidental Petroleum Corporation (Oxy), Westlake Chemical Corporation (Westlake), Formosa USA, and Shintech Inc., a subsidiary of Shin-Etsu Chemical Co., Ltd (Shintech). We are also a leading integrated global producer of chlorinated organic products with a strong cost position due to our scale and access to chlor alkali feedstocks. This industry also includes large diversified producers such as Oxy, Westlake, Nobian Industrial Chemicals B.V. (Nobian), Inovyn (an Ineos company), and KEM ONE Group SAS, as well as multiple producers located in China and India.

We are a major global fully integrated epoxy producer, with access to key low-cost feedstocks and a cost advantaged infrastructure. The markets in which our Epoxy segment operates are highly competitive and are dependent on significant capital investment, the development of proprietary technology and the maintenance of product research and development. Among our competitors are Huntsman Corporation (Huntsman), Westlake, Kukdo Chemical Co. Ltd. (Kukdo) and Kumho P&B Chemicals (Kumho) as well as multiple other producers located in Asia. We remain exposed to competition from low-priced imports across our full range of epoxy materials and precursors.

We believe our Winchester business is one of the largest global manufacturers of commercial small caliber ammunition. Our Winchester business and Vista Outdoor Inc. (Vista) are among the largest commercial ammunition manufacturers in the U.S. The ammunition industry is highly competitive with Olin, Vista and numerous smaller domestic manufacturers and foreign producers competing for sales to the commercial ammunition customers. Many factors influence our ability to compete successfully, including price, delivery, service, performance, product innovation and product recognition and quality, depending on the product involved.

HUMAN CAPITAL

Overview

At Olin, we believe that our employees are critical to successfully achieving our mission. Our established Lifting Olin People core principles fuel the actions that our Lifting People pillars - Opportunity & Fulfillment, Communication & Connection, and Trust - take throughout the year to enhance the purposeful engagement of our employees. Lifting People is about creating work environments for our global workforce that are inclusive, supportive, and empowering while encouraging and incentivizing the highest level of performance. We support our global workforce by providing competitive benefits and compensation, robust recognition and rewards, an unwavering commitment to diversity and inclusion, a variety of workplace flexibility options, support and resources for community engagement and volunteerism, and professional development programs and opportunities, all of which constitute a strong Olin employee value proposition. In 2023, Olin employees increased their volunteerism hours by more than 500% over 2022, committing more than 55,000 hours toward volunteerism for organizations in our communities. We commit to providing our employees with a safe and supportive environment and maintain a steadfast commitment to safely producing and distributing our products, which is fundamental to the achievement of our goals. Our global workforce is committed to the We Care and Me Principles which focus on each individual's responsibility for their own safety and that of others, on leading by example, on reinforcing positive behaviors and on elevating concerns.

Olin senior management provides oversight for the benefits programs and compensation of our workforce. This includes conducting periodic compensation benchmarking, implementing health and other employee benefit programs and reviewing certain employee post-retirement benefits and accessibility of employee assistance programs. Our human resources department manages and administers these programs to ensure our total rewards programs are competitive. We have both salaried and hourly employee structures in place to compensate employees. Our recognition and rewards program allows people leaders across our organization to recognize the contributions of employees during the year, and in 2023 our leaders provided more than 5,000 recognition awards. We also provide a mechanism for employees to provide non-monetary peer-to-peer recognition in the form of Impressions, which increased by 93% in 2023. Our benefits and compensation structures allow Olin to attract and retain a talented workforce which fosters achievement of Olin's goals and objectives. Separately, our Board of Directors maintains a Compensation Committee which sets policies, develops and monitors strategies for and administers the programs that are used to compensate our CEO and other senior executives.

Diversity, Equity and Inclusion

Olin is committed to lifting people through diversity and inclusion and maintaining work environments where all employees are comfortable bringing their authentic selves to work each day. We believe the insights provided by our workforce through their unique skills, backgrounds and experiences will lead us to future innovations that will reduce costs, reduce our environmental footprint, improve our ability to serve the world and keep our employees healthy and safe. To facilitate the sharing of those insights, we implemented a Voice of the Employee mechanism across multiple sites. We encourage our employees to be creative and participate in the dialogue across the company to help develop innovative solutions that lead to lasting, positive impacts for our customers, employees, communities, and shareholders. In 2023, we doubled our Olin People Network chapters, with 100% of our sites represented. Our U.S. college recruiting program, a key component of our talent pipeline, welcomed our most diverse class yet with 32% of our recruits being women and 37% of our recruits being minorities.

Olin employees are our best recruiters with 45% of our hires in 2023 attributable to employee referrals. Our employees are primarily located in the U.S., of which 29% are minorities. In our support of diversity and inclusion objectives, approximately 25% of our global workforce is comprised of women, and approximately 27% of our management roles are held by women and 12% by minority employees in the U.S. Our goal is to expand women in leadership positions to approximately 30% by 2025, an increase of approximately 10% against a 2018 baseline.

Training and Development

We also invest in the continued professional development of our workforce. We never stop learning, and Olin provides a wide range of employee development and productivity programs, including assignment-based opportunities, job shadowing, mentoring, and foundational programs for new Olin employees. These programs help our employees improve, grow, and reinforce our values, in particular of Lifting Olin People. Our learning platform focuses on providing a variety of educational opportunities that support career and professional development for our employees, including undergraduate and graduate tuition assistance to eligible employees up to a maximum of $10,000 per year. We regularly review talent development and succession plans to identify and develop a pipeline of talent to maintain and continuously improve business operations. We make purposeful moves to accelerate the development of high potential employees. We also have a well-established performance management process, which encourages ongoing feedback throughout the year and includes annual year-end reviews and regular development discussions.

Workforce

As of December 31, 2023, we had 7,326 employees broken out as follows:

Country or Region	***Number of Employees***	***Percent of Total***
United States[(1)]	6,206	85 %
Foreign:		
Europe, the Middle East, Africa, and India	655	9 %
Asia Pacific	184	2 %
Canada[(1)]	163	2 %
Latin America	118	2 %
Total foreign	1,120	15 %
Total employees	7,326	

(1) Various labor unions represent a significant number of our hourly-paid employees for collective bargaining purposes. In the U.S., bargaining unit employees comprise 35% of the total workforce. In 2024, we have no labor agreements that are due to expire in the U.S., and one labor agreement expiring in Canada, representing approximately 1% of our global workforce.

Segment	***Number of Employees***	***Percent of Total***
Chemicals[(1)]	3,423	47 %
Winchester[(2)]	3,639	50 %
Corporate	264	3 %
Total employees	7,326	

(1) Includes approximately 1,835 employees from Chlor Alkali Products and Vinyls, approximately 1,072 employees from Epoxy and approximately 516 employees for common services within Chemicals.

(2) Includes approximately 1,456 employees at Lake City in Independence, MO, which is a GOCO facility.

RESEARCH ACTIVITIES; PATENTS

Our research activities are conducted on a product-group basis at a number of facilities. Company-sponsored research expenditures were $20.0 million, $18.3 million and $20.4 million in 2023, 2022 and 2021, respectively.

We own or license a number of patents, patent applications and trade secrets covering our products and processes. We believe that, in the aggregate, the rights under our patents and licenses are important to our operations, but we do not consider any individual patent, license or group of patents and licenses related to a specific process or product to be of material importance to our total business.

SEASONALITY

Our sales are affected by economic downturns and the seasonality of several industries we serve, including building and construction, coatings, oil and gas, infrastructure, electronics, automotive, water treatment, refrigerants and ammunition. The seasonality of the ammunition business is typically driven by the U.S. fall hunting season. Our chlor alkali businesses generally experience their highest level of activity during the spring and summer months, particularly when construction, refrigerants, coatings and infrastructure activity is higher. Our Epoxy segment also serves a number of applications which experience their highest level of activity during the spring and summer months, particularly civil engineering and protective coatings and other construction materials, including composites and flooring.

RAW MATERIALS

Basic raw materials are processed through an integrated manufacturing process to produce a number of products that are sold at various points throughout the process. We purchase a portion of our raw material requirements and also utilize internal resources and finished goods as raw materials for downstream products. We believe we have reliable sources of supply for our raw materials under normal market conditions. However, we cannot predict the likelihood or impact of any future raw material shortages. We provide additional information with respect to specific raw materials in the tables set forth under "Products and Services."

ENVIRONMENTAL AND TOXIC SUBSTANCES CONTROLS

As is common in our industry, we are subject to environmental laws and regulations related to the use, storage, handling, generation, transportation, emission, discharge, disposal and remediation of, and exposure to, hazardous and non-hazardous substances and wastes in all of the countries in which we do business.

The establishment and implementation of national, state or provincial and local standards to regulate air, water and land quality affect substantially all of our manufacturing locations around the world. Laws providing for regulation of the manufacture, transportation, use and disposal of hazardous and toxic substances, and remediation of contaminated sites have imposed additional regulatory requirements on industry, particularly the chemicals industry. In addition, implementation of environmental laws has required and will continue to require new capital expenditures and will increase operating costs.

We are a party to various government and private environmental actions associated with former waste disposal sites and past manufacturing facilities. Charges to income for investigatory and remedial efforts were $30.1 million, $24.2 million and $16.2 million for the years ended December 31, 2023, 2022 and 2021, respectively. These charges may be material to operating results in future years. These charges do not include insurance recoveries for costs incurred and expensed in prior periods.

See our discussion on environmental matters contained in Note 21 "Environmental" of the notes to consolidated financial statements contained in Item 8 and under the heading "Environmental Matters" in Item 7—"Management's Discussion and Analysis of Financial Condition and Results of Operations."

CORPORATE RESPONSIBILITY

At Olin, we are committed to corporate responsibility to ensure the long-term success of our business, our collective global society and the well-being of our environment. We focus our corporate responsibility efforts on the areas of: (1) environment, health, safety and security stewardship, (2) sustainability and governance and (3) product stewardship. We value collaboration and commit to working with other organizations to encourage collective action for improving corporate responsibility. Additional information related to our corporate responsibility initiatives, practices, activities, goals and related information, as well as future updates, can be found in the Corporate Responsibility section of our website at www.olin.com, including our Sustainability Report under the section Sustainability Success. Our progress against environmental, social and governance (ESG) targets is included within our ESG Scorecard, found in the Sustainability section of our website. The contents of our website referenced in this section are not, and should not be considered to be, part of this report.

Environment, Health, Safety and Security Stewardship

Olin is strongly committed to excellence in protecting the environment, health, safety and security of our employees and those who live and work around our plants. Our operations worldwide comply with all local requirements and implement additional standards as required to protect the environment, health, safety and security of our operations. We use our management system to drive continuous improvement and achieve excellence in environmental, health, safety, process safety and security performance. Our safety, health and environmental strategy and goals are designed to sustain our drive to zero incidents. Relentlessly and responsibly, we constantly emphasize the importance of monitoring the safety, security and environmental impact of our plants and processes. Through our daily vigilance, Olin strives to continue to be recognized as one of the industry's best performers.

Our corporate values — Act with Integrity, Drive Innovation and Improvement and Lift Olin People — are part of our culture. These values are also reflected in our Environment, Health, Safety and Security (EHS&S) policy and practice. Olin leadership visibly performs and guides the organization to conduct business in a manner that protects and increasingly benefits our employees, business partners and the communities in which we live. All employees have responsibilities within our management systems necessary to sustain our drive to zero incidents. Olin continues its downward trend in personnel and process safety incidents.

Sustainability and Governance

We strongly believe in meeting the needs of the present without compromising the needs of future generations. We recognize our Company's impact on our natural resources and our responsibility to stewardship of people and the planet. This means striving for a company culture responsible to the ongoing ESG ideals of our employees and shareholders.

At Olin, we integrate sustainability into everything we do as a responsible corporate citizen. We value and respect our people, the communities in which we operate, our customers and the environment. We commit to making a contribution to protecting the world and its future condition through the safety and efficiency of our business practices - from supply to manufacturing to delivery and ultimately the end-use of our products. Executing on our sustainability strategy, we believe Olin will increase value for our investors, employees, and customers by enhancing our strategic operating model through focused ESG actions. These actions include:

- Protecting our employees and communities through our industry-leading occupational and process safety programs
- Proudly strengthening United States defense, international defense, law enforcement, and conservation through our Winchester ammunition brand
- Significantly reducing our environmental impact by taking concrete steps through technology and commercial innovation to lower our carbon footprint, net water usage, and resource consumption
- Developing and enabling sustainable solutions within the value chain through our product and service offerings
- Consistently upholding our values and governance standards as we amplify our culture of inclusion and cultivate our diverse workforce

We believe Olin's industry leadership, focused ESG actions, and our engaged workforce will create a positive, long-lasting impact on our communities and the environment.

Product Responsibility

We take pride in safely distributing and handling our products and enabling our customers to do the same. Our product stewardship and quality practices are aligned with our core values and other globally recognized standards. We apply these standards to our chemical business segments and relevant subsidiaries to ensure compliance with applicable global regulations, evaluation, continuous improvement and transparency of relevant production and product or formulation information. Additionally, Winchester ammunition is designed and manufactured in accordance with the voluntary industry standards published by the Sporting Arms and Ammunition Manufacturers' Institute. Our goal is to meet or exceed guidelines in every instance. Olin leadership demonstrates its commitment to these standards through active participation and communication concerning product safety, within our organization and to external stakeholders. We are deeply committed to ammunition education and advocate strongly for owners and participants to take the necessary steps to be trained and educated when handling, storing or using a firearm for recreational purposes, both for experienced and novice participants. Winchester dedicates an increasing share of its online content to safety education materials for all to responsibly and confidently own and use Winchester products.

Item 1A. RISK FACTORS

In addition to the other information in this Form 10-K, the following factors should be considered in evaluating Olin and our business. All of our forward-looking statements should be considered in light of these factors. The following summarizes the risks and uncertainties that we consider to be material and that may adversely affect our business, financial condition, results of operations, cash flows and/or reputation. Additional risks and uncertainties that we are unaware of or that we currently deem immaterial also may become important factors that affect us.

Business, Industry and Operational Risks

Sensitivity to Global Economic Conditions—Our operating results could be negatively affected during economic and industry downturns.

Our industries and the businesses of most of our customers have historically experienced periodic downturns. These economic, seasonal and industry downturns have been characterized by diminished product demand, excess manufacturing capacity and, in some cases, lower average selling prices. Therefore, any significant downturn in our customers' businesses, industry conditions, or in global economic conditions could result in a reduction in demand for our products.

Although a majority of our sales are within North America, a large part of our financial performance is dependent upon a healthy economy beyond North America because we have a significant amount of sales abroad and our customers sell their products abroad. As a result, our business is and will continue to be affected by general economic conditions and other factors in Europe, Asia Pacific, particularly China, and Latin America, including fluctuations in interest rates, customer demand, labor and energy costs, currency changes and other factors beyond our control, such as public health epidemics. The demand for our products and our customers' products is directly affected by such fluctuations. In addition, our customers could decide to move some or all of their production to locations that are more remote from our facilities, and this could reduce demand for our products. We cannot assure you that events having an adverse effect on the industries in which we operate will not occur or continue, such as a downturn in the European, Asian Pacific, particularly Chinese, Latin American, or other world economies, increases in interest rates, unfavorable currency fluctuations or prolonged effects of global public health crises, including pandemics. Economic conditions in other regions of the world, predominantly Asia and Europe, can adversely affect the balance between global supply and demand for our chemical products and increase the amount of products produced and made available for export to North America and other jurisdictions in which we sell. Any significant increased product supply could put downward pressure on our product pricing, negatively affecting our profitability.

Pricing Pressure—Our profitability could be reduced by declines in average selling prices of our products.

Our industries and each of our business segments experience fluctuating supply and demand, particularly in our Chlor Alkali Products and Vinyls segment, which can result in changes in selling prices. Periods of high demand, tight supply and increasing operating margins tend to result in increases in capacity and production until supply exceeds demand, generally followed by periods of oversupply and declining prices. We believe our strategic operating model can mitigate pricing pressure historically experienced during periods of supply exceeding demand. Nevertheless, we cannot assure you that increased pricing pressure will not affect our operating results in the future during these periods. Another factor influencing demand and pricing for chemical products is the price of energy. Higher natural gas prices increase our customers' and competitors' manufacturing costs and depending on the ratio of crude oil to natural gas prices, could make our customers less competitive in world markets, negatively affecting the demand and pricing for our chemical products.

In the chemical industries in which we operate, price is one of the major supplier selection criteria. Pricing is subject to a variety of factors, some of which are outside of our control. Decreases in the average selling prices of our products could have a material adverse effect on our profitability. While we strive to maintain or increase our profitability by executing our strategic operating model and by reducing costs through improving production efficiency, emphasizing higher margin products and by controlling transportation, selling and administrative expenses, we cannot assure you that these efforts will be sufficient to fully offset the effect of possible decreases in pricing on operating results.

Chlorine and caustic soda are produced simultaneously and in a fixed ratio of 1.0 ton of chlorine to 1.1 tons of caustic soda. An imbalance in customer demand may require Olin to reduce production of both chlorine and caustic soda or take other steps to correct the imbalance. Since we cannot store large quantities of chlorine, we may not be able to respond to an imbalance in customer demand for these products quickly or efficiently. To mitigate exposure and maximize value from the entire ECU, we continually take a number of actions, including, managing our production rates to the prevailing weaker side of the ECU, leveraging our portfolio of chlorine and chlorine derivatives outlets and entering into purchase for re-sale transactions. If our efforts are not successful and a substantial imbalance occurred, we might need to take actions that could have a material adverse effect on our business.

Our Epoxy segment is also subject to changes in operating results as a result of pricing pressures. Selling prices of epoxy materials are affected by changes in raw material costs, including energy, propylene and benzene, customer demand, and global fluctuations in supply and demand. Periods of supply/demand imbalances, particularly changes in trade flows within Asia Pacific markets, particularly China, can result in increased pricing pressure on our epoxy products. Declines in average selling prices of products of our Epoxy segment could have a material adverse effect on our business.

Our Winchester segment is also subject to pricing pressures. Selling prices of ammunition are affected by changes in raw material costs and availability, customer demand and industry production capacity. Declines in average selling prices of products of our Winchester segment could have a material adverse effect on our business.

We cannot assure you that pricing or profitability in the future will be comparable to any particular historical period, including the most recent period shown in our operating results. We cannot assure you that the chemical industry or ammunition industry will not experience adverse trends in the future.

Strategic Operating Model—Our operating results could be negatively affected if we do not successfully execute our operating model in our chemicals businesses.

Our strategic operating model in our chemicals businesses prioritizes ECU margins over sales volume. Adopted in late 2020, this model represents a change to how our Chlor Alkali Products and Vinyls and Epoxy businesses traditionally operated over the years. To mitigate exposure and maximize value from the entire ECU, the model necessitates managing production rates to the weaker side of the ECU. The execution of the model may not be successful over time. For example, we may not be able to consistently achieve higher margins, or the margin improvement achieved might be more than offset by the impact from lower sales volumes, either of which could have a material adverse effect on our business. In addition, we take actions from time to time designed to complement our operating model, such as purchase for re-sale transactions (which we sometimes refer to as "parlaying activities”) that may not improve our operating results and could adversely affect our business if these activities are not successfully implemented.

Some of our assets were designed to operate at consistently high operating rates. If we operate at lower operating rates for extended periods or make frequent changes to operating rates, our assets may become less reliable or may require additional maintenance or capital investment, which could have a material adverse effect on our business. Additionally, we may not be able to attract, develop, or retain the skills necessary to effectively execute the strategic operating model. Our model is dependent on implementing changes to the way we transact business with customers and other third parties. Customers or third parties may not be willing to transact with us on terms acceptable to us or at all. If we fail to effectively execute our strategic operating model, our operating results may fail to achieve the level of profitability that we forecast, and our business could be adversely affected.

Ability to Manage Executive Officer Transition—We must attract, retain and motivate key executive officers and the failure to do so or to effectively manage the transition of executive officers could have a material adverse effect on our business.

On February 19, 2024, we announced that our Board of Directors appointed Kenneth Lane, as President and Chief Executive Officer of Olin, effective as of March 18, 2024. Mr. Lane will succeed Scott Sutton, who will be stepping down as President and Chief Executive Officer and Director of Olin on March 18, 2024. Our success depends in large part on our ability to recruit and retain a qualified successor to Mr. Sutton and the continued availability and service of our other executive officers and senior management. The market for executive officers and senior management in our industry is competitive and we may not be able to retain our executive officers and senior management. We must continue to recruit, retain, and motivate management and other team members sufficiently, both to maintain our current business and to execute our long-term strategic initiatives. The loss of any of our executive officers or other key senior management without sufficient advance notice could prevent or delay the implementation and completion of our strategic initiatives, divert management’s attention to seeking qualified replacements, be disruptive to our daily operations or impact public or market perception. Any failure by us to manage a successful leadership transition of an executive officer and to timely identify a qualified permanent replacement could have a material adverse effect on our business.

Cost Control—Our profitability could be reduced if we experience increasing raw material, utility, transportation or logistics costs, or if we fail to achieve targeted cost reductions.

Our operating results and profitability are dependent upon our continued ability to control, and in some cases reduce, our costs. If we are unable to do so, or if costs outside of our control, particularly our costs of raw materials, utilities, transportation and similar costs, increase beyond anticipated levels, our profitability will decline. In addition, an increase in costs generally as a result of rising inflation, or in a particular sector such as the energy or transportation sector, could result in rising costs which we cannot fully mitigate through product price increases or cost reductions, which could also adversely affect our profitability.

For example, if our feedstock and energy costs increase, and we are unable to pass the increased costs on to customers, our profitability in our Chlor Alkali Products and Vinyls and Epoxy segments would be negatively affected. Similarly, costs of commodity metals and other materials used in our Winchester business, such as copper, propellant and lead, can vary. If we experience significant increases in these costs and are unable to raise our prices to offset the higher costs, the profitability in our Winchester business would be negatively affected.

Suppliers—We rely on a limited number of third-party suppliers for specified feedstocks and services.

We obtain a significant portion of our raw materials from a few key suppliers. If any of these suppliers fail to meet their obligations under present or any future supply agreements, we may be forced to pay higher prices or incur higher costs to obtain the necessary raw materials. Any interruption of supply or any price increase of raw materials could have a material adverse effect on our business. Certain of our facilities are dependent on feedstocks, services, and related infrastructure provided by third parties, which are provided pursuant to long-term contracts. Any failure of those third parties to perform their obligations under those agreements or disagreements regarding the performance under those agreements or inability to renew such agreements at acceptable terms could adversely affect the operation of the affected facilities and our business, or result in diversion of management's attention or our resources from other business matters. If we are required to obtain an alternate source for these feedstocks or services, we may not be able to obtain equally favorable pricing and terms. Additionally, we may be forced to pay additional transportation costs or to invest in capital projects for pipelines or alternate facilities to accommodate railcar or other delivery methods or to replace other services.

Subject to existing contracts, a vendor may choose to modify its relationship with us due to general economic concerns or concerns relating to the vendor or us, at any time. Any significant change in the terms that we have with our key suppliers could have a material adverse effect on our business, as could significant additional requirements from suppliers that we provide them additional security in the form of prepayments or posting letters of credit.

Production Hazards—Our facilities are subject to operating hazards, which may disrupt our business.

We are dependent upon the continued safe and reliable operation of our production facilities. Our production facilities are subject to hazards associated with the manufacture, handling, storage and transportation of chemical materials and products and ammunition, including leaks and ruptures, explosions, fires, inclement weather and natural disasters, unexpected utility disruptions or outages, unscheduled downtime, equipment failure, information technology systems interruptions or failures, terrorism, transportation interruptions, transportation incidents involving our chemical products, chemical spills and other discharges or releases of toxic or hazardous substances or gases and environmental hazards. Due to the integrated nature of our large chemical sites, an event at one plant could affect production across multiple plants at a facility. In the past, we have had incidents that have temporarily shut down or otherwise disrupted our manufacturing, causing production delays and resulting in liability for workplace injuries and fatalities. Some of our operations involve manufacturing and/or handling various explosive and flammable materials. Use of our products by our customers could also result in liability if an explosion, fire, spill or other accident were to occur. We cannot assure you that we will not experience these types of incidents in the future or that these incidents will not result in production delays or otherwise have a material adverse effect on our business.

We maintain risk management strategies, including but not limited to levels of insurance associated with property, casualty and business interruption. Such insurance may not cover all of the risks associated with the hazards of our business and is subject to limitations, including deductibles and maximum liabilities covered. We may incur losses beyond the limits, or outside the coverage, of our insurance policies. We may also be unable to continue to maintain our existing insurance or obtain comparable insurance at a reasonable cost.

Physical Risk of Climate-Related Events—Our facilities are subject to physical risks associated with climate-related events or increased severity and frequency of severe weather events.

We are exposed to climate-related risks and uncertainties, many of which are outside of our control. We have a substantial presence near the U.S. Gulf Coast and a significant portion of our manufacturing facilities, similar to our competitors and customers, are structured near major bodies of water. Major hurricanes, or other weather-related events, have caused significant disruption in our operations on the U.S. Gulf Coast, logistics across the region and the supply of certain raw materials, which have had an adverse effect on volume and cost for some of our products. Climate change could result in more frequent severe weather events, potential changes in precipitation patterns and extreme variability in weather patterns, which could disrupt our operations as well as those of our customers and suppliers. Severe weather conditions or other natural phenomena in the future, including those resulting from climate change, could have a material adverse effect on our business.

Third-Party Transportation—We rely heavily on third-party transportation, which subjects us to risks and costs that we cannot control.

We rely heavily on railroad, truck, marine vessel, barge and other shipping companies to transport finished products to customers and to transport raw materials to the manufacturing facilities used by each of our businesses. These transport operations are subject to various hazards and risks, including extreme weather conditions, work stoppages and operating hazards, as well as domestic and international transportation and maritime regulations. In addition, the methods of transportation we utilize, including shipping chlorine and other chemicals by railroad and by barge, may be subject to additional, more stringent and more costly regulations in the future. If we are delayed or unable to ship finished products or unable to obtain raw materials as a result of any such new or modified regulations or public policy changes related to transportation safety, or these transportation companies' failure to operate properly, or if there are significant changes in the cost of these services due to new additional regulations, or otherwise, we may not be able to arrange efficient alternatives and timely means to obtain raw materials or ship goods, which could result in a material adverse effect on our business. If any third-party railroad that we utilize to transport chlorine and other chemicals ceases to transport certain hazardous materials, or if there are significant changes in the cost of shipping hazardous materials by rail or otherwise, we may not be able to arrange efficient alternatives and timely means to deliver our products or at all, which could result in a material adverse effect on our business.

Raw Materials—Availability of purchased feedstocks and energy, and the volatility of these costs, affect our operating costs and add variability to earnings.

Purchased feedstock, including propylene and benzene, and energy costs account for a substantial portion of our total production costs and operating expenses. We purchase certain raw materials as feedstocks.

Feedstock and energy costs generally follow price trends in crude oil and natural gas, which are sometimes volatile. Ultimately, the ability to pass on underlying cost increases in a timely manner or at all is partially dependent on market conditions. Conversely, when feedstock and energy costs decline, selling prices generally decline as well. As a result, volatility in these costs could have a material adverse effect on our business.

If the availability of any of our principal feedstocks is limited or we are unable to obtain natural gas or energy from any of our energy sources, we may be unable to produce some of our products in the quantities demanded by our customers, which could have a material adverse effect on plant utilization and our sales of products requiring such raw materials. We have long-term supply contracts with various third parties for certain raw materials, including ethylene, electricity, propylene and benzene. As these contracts expire, we may be unable to renew these contracts or obtain new long-term supply agreements on terms comparable or as favorable to us, depending on market conditions, which may have a material adverse effect on our business. In addition, many of our long-term contracts contain provisions that allow our suppliers to limit the amount of raw materials shipped to us below the contracted amount in force majeure or similar circumstances. If we are required to obtain alternate sources for raw materials because our suppliers are unwilling or unable to perform under raw material supply agreements or if a supplier terminates or is unwilling to renew its agreements with us, we may not be able to obtain these raw materials from alternative suppliers or obtain new long-term supply agreements on terms comparable or as favorable to us.

Information Security—A failure of our information technology systems, or an interruption in their operation due to internal or external factors, including cyber-attacks, could have a material adverse effect on our business.

Our operations depend on our ability to protect our information systems, computer equipment and information databases from systems failures. We rely on both internal information technology systems and certain external service providers to assist in the management of the day-to-day operation of our business, operate elements of our manufacturing facilities, manage relationships with our employees, customers and suppliers, fulfill customer orders and maintain our financial, accounting or other business records. Failure of any one or more than one of our information technology systems could be caused by internal or external events or parties, such as incursions by intruders or hackers, computer viruses, cyber-attacks, failures in hardware or software, or power or telecommunication fluctuations or failures. The failure of our information technology systems to perform as anticipated for any reason or any significant breach of security could disrupt our business and result in numerous adverse consequences, including reduced effectiveness and efficiency of operations, increased costs or loss of important information, or loss of sales, any of which could have a material adverse effect on our business. We have technology and information security processes, periodic external service and service provider reviews, insurance policies and disaster recovery plans in place to mitigate our risk to these vulnerabilities. However, these measures may not be adequate to ensure that our operations will not be disrupted or our financial impact minimized, should such an event occur.

Ability to Attract and Retain Qualified Employees—We must attract, retain and motivate key employees, and the failure to do so may materially adversely affect our business.

We believe our success depends on hiring, retaining and motivating key employees, including executive officers. Our future success depends in part on our ability to identify and develop talent throughout the organization who adopt and successfully execute our strategic operating model. The development and retention of key personnel and appropriate senior management succession planning will continue to be important to the successful execution of our strategies. We may have difficulty locating and hiring qualified personnel. In addition, we may have difficulty retaining such personnel once hired, and key people may leave and compete against us. The loss of key personnel or our failure to attract and retain other qualified and experienced personnel could disrupt or materially adversely affect our business. In addition, our operating results could be adversely affected by increased costs due to increased competition for employees or higher employee turnover, which may result in the loss of significant customer business or increased costs.

Acquisitions and Joint Ventures—We may not be able to complete future acquisitions or joint venture transactions or successfully integrate them into our business, which could materially adversely affect our business.

As part of our growth strategy, we intend to pursue acquisitions and joint venture opportunities consistent with or complementary to our existing business strategies. Successful accomplishment of this objective may be limited by the availability and suitability of acquisition candidates, the ability to obtain regulatory approvals necessary to complete a planned transaction, and by our financial resources. Acquisitions and joint venture transactions involve numerous risks, including difficulty determining appropriate valuation, integrating operations, technologies, services and products of the acquired businesses, personnel turnover and the diversion of management's attention from other business matters. The nature of a joint venture requires us to work cooperatively with unaffiliated third parties. Differences in views among joint venture participants may result in delayed decisions or failure to agree on major decisions. If these differences cause the joint ventures to deviate from their business plans or fail to achieve their desired operating performance, our results of operations could be adversely affected. In addition, we may be unable to achieve anticipated benefits from these transactions in the time frame that we anticipate, or at all, which could have a materially adverse effect on our business.

International Sales and Operations—We are subject to risks associated with our international sales and operations that could have a material adverse effect on our business.

Olin has an international presence, including the geographic regions of Europe, Asia Pacific, Latin America and Canada. In 2023, approximately 33% of our sales were generated outside of the United States. These international sales and operations expose us to risks, including:

- difficulties and costs associated with complying with complex and varied laws, treaties, and regulations;
- tariffs and trade barriers;
- outbreaks of serious disease, such as pandemics, which could cause us and our suppliers and/or customers to temporarily suspend operations in affected areas, restrict the ability of Olin to distribute our products or cause economic downturns that could affect demand for our products;
- geopolitical or regional conflicts which can disrupt trade flows, supply/demand fundamentals, or the ability to sell certain products within countries or regions;
- changes in laws and regulations, including the imposition of economic or trade sanctions affecting international commercial transactions;
- risk of non-compliance with anti-bribery laws and regulations, such as the U.S. Foreign Corrupt Practices Act;
- restrictions on, or difficulties and costs associated with, the repatriation of cash from foreign countries to the United States;
- unfavorable currency fluctuations;
- changes in local economic conditions, including inflation levels exceeding that of the U.S.;
- unexpected changes in political or regulatory environments;
- labor compliance and costs associated with a global workforce;
- data privacy regulations;
- difficulties in maintaining overseas subsidiaries and international operations; and
- challenges in protecting intellectual property rights.

Any one or more of the above factors could have a material adverse effect on our business.

Indebtedness—Our indebtedness could materially adversely affect our business.

As of December 31, 2023, we had $2,670.1 million of indebtedness outstanding. Outstanding indebtedness does not include amounts that could be borrowed under our Senior Revolving Credit Facility with aggregate commitments of $1,200.0 million (Senior Revolving Credit Facility). As of December 31, 2023, our indebtedness represented 54.1% of our total capitalization and $78.8 million of our indebtedness was due within one year. Despite our level of indebtedness, we expect to continue to have the ability to borrow additional debt, but we cannot be certain that additional debt will be available on terms acceptable to us or at all.

Our indebtedness could have important consequences, including but not limited to:

- limiting our ability to fund working capital, capital expenditures, and other general corporate purposes;
- limiting our ability to accommodate growth by reducing funds otherwise available for other corporate purposes, which in turn could prevent us from fulfilling our obligations under our indebtedness;
- limiting our operational flexibility due to the covenants contained in our debt agreements;
- to the extent that our debt is subject to floating interest rates, increasing our vulnerability to fluctuations in market interest rates;
- limiting our ability to pay cash dividends;
- limiting our ability to approve or execute share repurchase programs;
- limiting our flexibility for, or reacting to, changes in our business or industry or economic conditions, thereby limiting our ability to compete with companies that are not as highly leveraged; and

- increasing our vulnerability to economic downturns.

Our ability to generate sufficient cash flow from operations to make scheduled payments on our debt will depend on a range of economic, competitive and business factors, many of which are outside our control. There can be no assurance that our business will generate sufficient cash flow from operations to make these payments. If we are unable to meet our expenses and debt obligations, we may need to refinance all or a portion of our indebtedness before maturity, sell assets or issue additional equity. We may not be able to refinance any of our indebtedness, sell assets or issue additional equity on commercially reasonable terms or at all, which could cause us to default on our obligations and impair our liquidity. Our inability to generate sufficient cash flow to satisfy our debt obligations, or to refinance our debt obligations on commercially reasonable terms, would have a material adverse effect on our business, as well as on our ability to satisfy our debt obligations.

Credit Facility—Weak industry conditions could affect our ability to comply with the financial maintenance covenants in our senior credit facility.

Our senior credit facility includes certain financial maintenance covenants requiring us to not exceed a maximum leverage ratio and to maintain a minimum coverage ratio.

Depending on the magnitude and duration of economic or industry downturns affecting our businesses, including deterioration in prices and volumes, there can be no assurance that we will continue to be in compliance with these ratios. If we fail to comply with either of these covenants in a future period and are not able to obtain waivers from the lenders, we would need to refinance our current senior credit facility or our ability to borrow under this facility may be limited. However, there can be no assurance that such refinancing would be available to us on terms that would be acceptable to us or at all.

Credit and Capital Market Conditions—Adverse conditions in the credit and capital markets may limit or prevent our ability to borrow or raise capital.

While we believe we have facilities in place that should allow us to borrow funds as needed to meet our ordinary course business activities, adverse conditions in the credit and financial markets could prevent us from obtaining financing, if the need arises, or result in our creditors terminating their funding commitments. Our ability to invest in our businesses and refinance or repay maturing debt obligations could require access to the credit and capital markets and sufficient bank credit lines to support cash requirements. Our ability to access credit and capital markets can also depend on our credit rating as determined by reputable credit rating agencies. A significant downgrade in our credit rating could affect our ability to refinance or repay maturing debt obligations, result in increased borrowing costs, decrease the availability of capital from financial institutions or require our subsidiaries to post letters of credit, cash or other assets as collateral with certain counterparties. If we are unable to access the credit and capital markets on commercially reasonable terms, we could experience a material adverse effect on our business.

Pension Plans—The impact of declines in global equity and fixed income markets on asset values and any declines in interest rates and/or improvements in mortality assumptions used to value the liabilities in our pension plans may result in higher pension costs and the need to fund the pension plans in future years in material amounts.

We sponsor domestic and foreign defined benefit pension plans for eligible employees and retirees. Substantially all domestic defined benefit pension plan participants are no longer accruing benefits. However, a portion of our bargaining hourly employees continue to participate in our domestic qualified defined benefit pension plans under a flat-benefit formula. Our funding policy for the qualified defined benefit pension plans is consistent with the requirements of federal laws and regulations. Our foreign subsidiaries maintain pension and other benefit plans, which are consistent with local statutory practices. The determinations of pension expense and pension funding are based on a variety of rules and regulations along with economic factors which are outside of our control. These factors include returns on invested assets, the level of certain market interest rates, the discount rates used to determine pension obligations and mortality assumptions used to value liabilities in our pension plans. Changes in these rules and regulations or unfavorable changes to the factors which are used to value the assets and liabilities in our pension plans could impact the calculation of funded status of our pension plans. They may also result in higher pension costs and the need for additional pension plan funding. See "Pension and Postretirement Benefits" contained in Item 7—"Management's Discussion and Analysis of Financial Condition and Results of Operations."

Asset Impairment—If our goodwill, other intangible assets or property, plant and equipment become impaired in the future, we may be required to record non-cash charges to earnings, which could be significant.

The process of impairment testing for our goodwill involves a number of judgments and estimates made by management including future cash flows, discount rates, profitability assumptions and terminal growth rates with regards to our reporting units. Our internally generated long-range plan includes assumptions regarding pricing and operating forecasts for the chlor alkali industry. If the judgments and estimates used in our analysis are not realized or are affected by external factors, then actual results may not be consistent with these judgments and estimates, and we may be required to record a goodwill impairment charge in the future, which could be significant and have a material adverse effect on our business.

We review long-lived assets, including property, plant and equipment and identifiable amortizing intangible assets, for impairment whenever changes in circumstances or events may indicate that the carrying amounts are not recoverable. If the fair value is less than the carrying amount of the asset, an impairment is recognized for the difference. Factors which may cause an impairment of long-lived assets include significant changes in the manner of use of these assets, negative industry or market trends, a significant underperformance relative to historical or projected future operating results, extended period of idleness or a likely sale or disposal of the asset before the end of its estimated useful life. If our property, plant and equipment and identifiable amortizing intangible assets are determined to be impaired in the future, we may be required to record non-cash charges to earnings during the period in which the impairment is determined, which could be significant and have a material adverse effect on our business.

Legal, Environmental and Regulatory Risks

Effects of Regulation—Changes in or failure to comply with applicable laws or government regulations or policies could have a material adverse effect on our business.

Legislation or regulations that may be adopted or modified by U.S. or foreign governments that affect products we produce could significantly affect the sales, costs and profitability of our business, including legislation or regulations intended to address antitrust and competition, the environment, climate change, taxes, international trade matters through import and export duties and quotas and anti-dumping measures and related tariffs.

The chemical and ammunition industries are subject to extensive legislative and regulatory actions, which could have a material adverse effect on our business. Many of our products and operations are subject to chemical control laws of the countries in which they are located. These laws include regulation of chemical substances and inventories under the U.S. Toxic Substances Control Act of 1976 (TSCA) in the U.S. and the Registration, Evaluation and Authorization of Chemicals (REACH) regulation in Europe. Likewise, Congress and government agencies also periodically consider legislation and other regulations related to the ammunition business, and legislative or regulatory actions could affect our ability to manufacture and sell certain types of ammunition, including restrictions on exports to certain countries.

TSCA was amended in 2016, and the U.S. Environmental Protection Agency (EPA) is currently evaluating several of our products and manufacturing processes for additional regulation under the amended law. Certain of our products, or inputs into our manufacturing process, are subject to regulation under current TSCA regulations, and other chemicals or ingredients may be regulated under the law in the future. In 2022, the EPA proposed a regulation that would ban the use of asbestos, a principal material used in diaphragm-based chlorine manufacturing in as soon as two years following publication of a final rule. Diaphragm technology-based chlorine production makes up a significant part of Olin’s capacity and this proposed government regulation could significantly increase the cost of production or cause us to close production capacity that would have negative consequences on our business. The EPA has found "unreasonable risk” associated with several of Olin’s chlorinated organic products under the new TSCA law and we anticipate proposed rules from the EPA on these products also present risk to these businesses. Olin also anticipates future regulatory action related to EDC under the amended TSCA law that could significantly affect the sales, costs and profitability of that product line.

Under REACH, additional testing requirements, documentation, risk assessments and registrations are occurring and will continue to occur and may adversely affect our costs of products produced in or imported into the European Union. The European Union is currently considering regulations related to the use of bisphenol, or BPA, in chemical manufacturing, which is a critical component of the epoxy resins we manufacture and sell in the region.

Compliance with current or future TSCA, REACH, or other regulations may limit or hinder our ability to manufacture our products and/or cause us to incur expenditures that are material to our business. Additionally, changes to government regulations and laws, including TSCA and REACH, or changes in their interpretation may reduce the demand for our products, impact our ability to use or manufacture certain products, or limit our ability to implement our strategies, any of which could have a material adverse effect on our business. A material change in tax laws, treaties or regulations in the jurisdictions in which we operate or a change in their interpretation or application could have a material adverse effect on our business.

Security and Chemicals Transportation—New regulations on the transportation of hazardous chemicals and/or the security of chemical manufacturing facilities and public policy changes related to transportation safety could result in significantly higher operating costs.

The transportation of our products and feedstocks, including transportation by pipeline, and the security of our chemical manufacturing facilities are subject to extensive regulation. Government authorities at the local, state and federal levels could implement new or stricter regulations, or change their interpretations of existing regulations, that would impact the security of chemical plant locations and the transportation of hazardous chemicals. Our Chlor Alkali Products and Vinyls and Epoxy segments could be adversely affected by the cost of complying with any new regulations. Our business also could be adversely affected if an incident were to occur at one of our facilities or while transporting products. The extent of the impact would depend on the requirements of future regulations and the nature of an incident, which are unknown at this time.

Legal and Regulatory Claims and Proceedings—We are subject to legal and regulatory claims and proceedings, which could cause us to incur significant expenses.

We are subject to legal and regulatory claims and proceedings relating to our present and former operations and could become subject to additional claims in the future, some of which could be material. These proceedings may be brought by the government or private parties and may arise out of a number of matters, including, antitrust claims, contract disputes, product liability claims, including ammunition and firearms, and proceedings alleging injurious exposure of plaintiffs to various chemicals and other substances (including proceedings based on alleged exposures to asbestos). Frequently, the proceedings alleging injurious exposure involve claims made by numerous plaintiffs against many defendants. Defense of these claims can be costly and time-consuming even if ultimately successful. Because of the inherent uncertainties of legal proceedings, we are unable to predict their outcome and therefore cannot determine whether the financial effect, if any, will be material to our business. We have included additional information with respect to pending legal and regulatory proceedings in Part II, Item 8, under the heading of "Legal Matters" within Note 23, "Commitments and Contingencies," of our Notes to Consolidated Financial Statements.

Environmental Costs—We have ongoing environmental costs, which could have a material adverse effect on our business.

Our operations and assets are subject to extensive environmental, health and safety regulations, including laws and regulations related to air emissions, water discharges, waste disposal and remediation of contaminated sites. The nature of our operations and products, including the raw materials we handle, exposes us to the risk of liabilities, obligations or claims under these laws and regulations due to the production, storage, use, transportation and sale of materials that can adversely impact the environment or cause personal injury, including, in the case of chemicals, unintentional releases into the environment. Environmental laws may have a significant effect on the costs of use, transportation, handling and storage of raw materials and finished products, as well as the costs of storage, handling, treatment, transportation and disposal of wastes. In addition, we are party to various government and private environmental actions associated with past manufacturing facilities and former waste disposal sites. We have incurred, and expect to incur, significant costs and capital expenditures in complying with environmental laws and regulations.

The ultimate costs and timing of environmental liabilities are difficult to predict. Liabilities under environmental laws relating to contaminated sites can be imposed retroactively and on a joint and several basis. One liable party could be held responsible for all costs at a site, regardless of fault, percentage of contribution to the site or the legality of the original disposal. We could incur significant costs, including clean-up costs, natural resource damages, civil or criminal fines and sanctions and third-party lawsuits claiming, for example, personal injury and/or property damage, as a result of past or future violations of, or liabilities under, environmental or other laws.

In addition, future events, such as changes to environmental laws, changes in the interpretation or implementation of current environmental laws or new information about the extent of remediation required, could require us to make additional expenditures, modify or curtail our operations and/or install additional pollution control equipment. It is possible that regulatory agencies may identify new chemicals of concern or enact new or more stringent clean-up standards for existing chemicals of concern. This could lead to expenditures for environmental remediation in the future that are additional to existing estimates.

Accordingly, it is possible that some of the matters in which we are involved or may become involved may be resolved unfavorably to us, which could have a material adverse effect on our business. See "Environmental Matters" contained in Item 7—"Management's Discussion and Analysis of Financial Condition and Results of Operations."

Governmental Contract Compliance and Deliverables—Various risks associated with our Lake City contract and performance under other government contracts could materially adversely affect our business.

Our Winchester business currently operates and manages the Lake City Army Ammunition Plant in Independence, MO under a multi-year contract with the U. S. Army. The contract has an initial term of seven years, starting on October 1, 2020, and may be extended for up to three additional years. Additionally, our Winchester business is engaged to perform various deliverables under other government contract arrangements. The Lake City facility also allows, under certain conditions, for Winchester to utilize the facility to produce commercial ammunition. The operation of the Lake City facility and our other U.S. government contracts require compliance with numerous contract provisions and government regulations. U.S. government contracts often reserve the right to audit our contract costs and conduct inquiries and investigations of our business practices and compliance with government contract requirements. In some cases, audits may result in delayed payments or contractor costs not being reimbursed or subject to repayment. Our failure to comply with any one of these contract provisions and regulations could have a material adverse effect on our business.

A large portion of our government contracts contain fixed-price deliverables while a smaller portion are performed under cost-plus arrangements. While certain of these contracts contain price escalation and other price adjustment provisions, if we are unable to control costs related to these contracts or if our assumptions regarding the fixed pricing on one or multiple of these contracts is incorrect, we may experience lower profitability, materially adversely affecting our business.

Labor Matters—We cannot assure that we can conclude future labor contracts or any other labor agreements without work stoppages.

Various labor unions represent a significant number of our hourly paid employees for collective bargaining purposes. In 2024, we have no labor agreements that are due to expire in the U.S., and one labor agreement expiring in Canada, representing approximately 1% of our global workforce.

In addition, a large number of our employees are located in countries in which employment laws provide greater bargaining or other rights to employees than the laws of the U.S. Such employment rights require us to work collaboratively with the legal representatives of those employees to effect any changes to labor arrangements. For example, most of our employees in Europe are represented by works councils that must approve any changes in conditions of employment, including salaries and benefits and staff changes, and may impede efforts to restructure our workforce. While we believe our relations with our employees and their various representatives are generally satisfactory, we cannot assure that we can conclude any labor agreements without work stoppages and cannot assure that any work stoppages will not have a material adverse effect on our business.

Environmental, Social and Governance (ESG)—ESG issues and related regulations, including those related to climate change and sustainability, may have a materially adverse effect on our business.

Companies across all industries are facing increased scrutiny related to their ESG policies and practices. Increased focus and activism related to ESG may hinder our access to credit and capital markets, as investors may reconsider their investment as a result of their assessment of our ESG policies and practices. In particular, customers, consumers, investors and other stakeholders are increasingly focusing on environmental issues, including climate change, energy and water use, greenhouse gas (GHG) emissions and other sustainability concerns. Change in public sentiment may result in changing demands for our customers' products and the products which we produce in light of their perceived environmental impacts or other related issues. These demand changes could cause changes in the market dynamics of our existing products, impacting pricing, or we may incur additional costs to make changes to our operations to comply with such demand changes.

Concern over climate change, GHG emissions in particular, may result in new or increased legal and regulatory requirements to reduce or mitigate impacts to the environment. Increased regulatory requirements or demands for enhanced mitigation of environmental impacts may result in increased compliance costs, including capital expenditures, higher energy and raw materials input costs or compliance with more stringent emissions standards, which may cause disruptions in the manufacture of our products or an increase in operating costs. Any failure to achieve our ESG goals, or a perception of our failure to act responsibly with respect to the environment or to effectively respond to new, or updated, legal or regulatory requirements concerning environmental or other ESG matters, or increased operating or manufacturing costs due to increased regulation or efforts to mitigate environmental impacts could have a material adverse effect on our business.

Item 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

Item 1C. CYBERSECURITY

Cybersecurity Risk Management and Strategy

We have an enterprise-wide cybersecurity risk management approach designed to identify, protect, detect, respond to and manage cybersecurity and information technology risks and threats. This program is integrated into our enterprise risk management (ERM) framework, and the underlying controls leverage recognized best practices and standards for cybersecurity and information technology, including the National Institute of Standards and Technology Cybersecurity Framework.

Our Company's Chief Information Officer (CIO) is responsible for developing and maintaining our global cybersecurity and information technology program and directs our Information Security team. The Information Security team is primarily responsible for identifying and protecting against cybersecurity threats and maintains a comprehensive set of policies and standards applicable to our global organization. We consult with multiple third-party firms to assess and review these policies and standards and regularly update them for contemporary best practices. Our CIO has over fifteen years of experience leading cybersecurity oversight for global organizations, and our Information Security team leaders have extensive cybersecurity and information technology industry experience with Olin or other large public companies and hold industry certifications, including the Certified Information Systems Security Professional certification.

Our Information Security team monitors alerts and meets to discuss threat levels, trends and remediation tactics. Every identified cyber event is evaluated, ranked by severity and prioritized for response and remediation in compliance with our global Security Incident Management Procedure. Significant events are evaluated for both quantitative and qualitative factors to determine materiality on a case-by-case basis, including, among other factors, potential privacy, operational, financial, or reputational impacts for the Company, and our customers, vendors, shareholders, or other external stakeholders. The Information Security team prepares a monthly scorecard for senior management, summarizing cyber events for the month and reporting on our remedial actions. While we have experienced cybersecurity attacks, such attacks to date have not materially affected the Company or our business strategy, results of operations, or financial condition.

The Company regularly conducts penetration testing, both internally and by third parties, and conducts automated attacks simulating real-world cyber incidents. These tests and assessments are useful tools for maintaining a comprehensive cybersecurity program to protect our investors, customers, employees, vendors, and intellectual property. We continue to expand our cybersecurity risk mitigation strategies, which includes around-the-clock monitoring of our global network, using layered defenses and identifying and protecting critical assets, including our manufacturing facilities. The Information Security team conducts annual cybersecurity awareness training and quarterly email phishing tests and training for all employees.

We rely on certain external service providers to assist in the management of the day-to-day operation of our business, operate elements of our manufacturing facilities, manage relationships with our employees, customers, and suppliers, fulfill customer orders, and maintain our financial, accounting, or other business records. The Information Security team maintains a third-party security program to identify, prioritize, assess, mitigate, and remediate our third-party risks; however, we also rely on our third-party vendors, suppliers, and other business partners to implement security programs commensurate with their risk, and we cannot ensure in all circumstances that their efforts will be successful. Cybersecurity risks are assessed when selecting our third-party service providers and reassessed periodically.

We face a number of cybersecurity risks in connection with our business. Failure of any one or more than one of our information technology systems could be caused by internal or external events or parties, such as incursions by intruders or hackers, computer viruses, cyber-attacks, failures in hardware or software, or power or telecommunication fluctuations or failures. For more information about the cybersecurity risks we face, see Item 1A - Risk Factors.

Cybersecurity Governance

Cybersecurity is an important component of our ERM framework and an area of focus for both our Board of Directors (Board) and management team. While management holds primary responsibility for our Company's risk management strategy, our Board, with the support of its committees, oversees the process to ensure that the framework designed, implemented and maintained by management is functioning as intended and adapts, when necessary, to our evolving strategy and emerging risks. The Board's Audit Committee is delegated responsibility for oversight of our ERM process, including our strategies to identify, detect and respond to cybersecurity and information technology risks and threats. Our Audit Committee's process includes an annual review of our ERM program to ensure appropriate practices are in place to monitor and mitigate identified risks on an ongoing basis. Additionally, our CIO meets with the Audit Committee or Board each quarter to discuss cyber hygiene, incidents (as needed), and provide updates on our enterprise-wide cybersecurity risks and strategies, including steps taken to mitigate and manage the same. To aid the Board with its cybersecurity and data privacy oversight responsibilities, the Board periodically hosts experts for presentations on current cyber topics, trends and best practices. We have established protocols by which certain cybersecurity incidents are reported to the Audit Committee and Board.

Item 2. PROPERTIES

Information concerning our principal locations from which our products and services are manufactured, distributed or marketed are included in the tables set forth under the caption "Products and Services" contained in Item 1—"Business." Generally, these facilities are well maintained, in good operating condition, and suitable and adequate for their use. Our two largest facilities are co-located with a site partner. The land on which these facilities are located is leased with a 99-year initial term that commenced in 2015. Additionally, we lease warehouses, terminals and distribution offices and space for executive and branch sales offices and service departments. We believe our current facilities are adequate to meet the requirements of our present operations.

On October 1, 2020, Winchester assumed full management and operational control of the Lake City Army Ammunition Plant in Independence, MO, which is a government-owned, contractor-operated facility. The contract is for the production of small caliber military ammunition, including 5.56mm, 7.62mm, and .50 caliber rounds, as well as certain cartridges and casings. The contract also allows for the production of certain ammunition for commercial customers. The contract has an initial term of seven years and may be extended by the U.S. Army for up to three additional years.

Item 3. LEGAL PROCEEDINGS

Discussion of legal matters is incorporated by reference from Part II, Item 8, under the heading of "Legal Matters" within Note 23, "Commitments and Contingencies," and should be considered an integral part of Part I, Item 3, "Legal Proceedings."

Item 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

As of January 31, 2024, we had 2,805 record holders of our common stock.

Our common stock is traded on the NYSE under the "OLN" ticker symbol.

A dividend of $0.20 per common share was paid during each of the four quarters in 2023 and 2022.

Issuer Purchases of Equity Securities

Period	*Total Number of Shares (or Units) Purchased*[(1)]	*Average Price Paid per Share (or Unit)*[(2)]	*Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs*	*Maximum Dollar Value of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs*
October 1-31, 2023	1,254,572	$ 47.84	1,254,572	
November 1-30, 2023	1,232,117	44.66	1,232,117	
December 1-31, 2023	—	—	—	
Total				$ 997,042,178 (1)

(1) On July 28, 2022, our Board of Directors authorized a share repurchase program for the purchase of shares of common stock at an aggregate price of up to $2.0 billion (the 2022 Repurchase Authorization). This program will terminate upon the purchase of $2.0 billion of common stock. Through December 31, 2023, 19,234,991 shares of common stock had been repurchased and retired at a total value of $1,003.0 million and $997.0 million of common stock remained available for purchase under the 2022 Repurchase Authorization program.

(2) Average price paid per share includes transaction costs including commissions and fees paid to acquire the shares and excludes costs associated with 1% excise tax on the fair market value of stock repurchases.

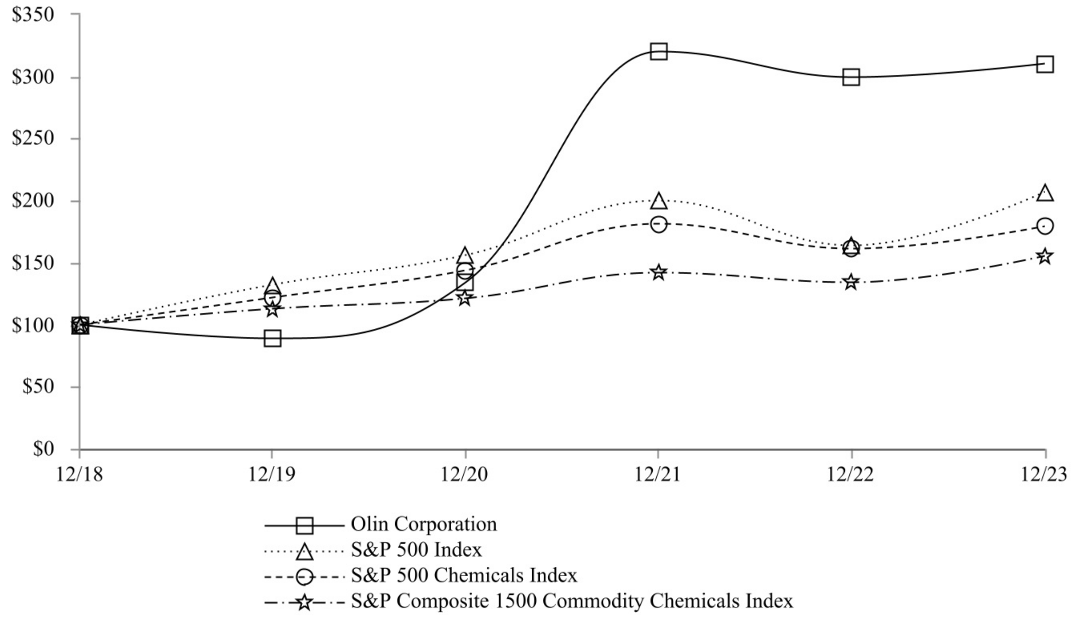
Performance Graph

This graph compares the total shareholder return on our common stock with the cumulative total return of the Standard & Poor's (S&P) 500 Index, S&P 500 Chemicals Index and S&P Composite 1500 Commodity Chemicals Index.

COMPARISON OF FIVE-YEAR CUMULATIVE TOTAL RETURN

Among Olin Corporation, the S&P 500 Index,

S&P 500 Chemicals Index and the S&P Composite 1500 Commodity Chemicals Index



	December 31,					
	2018	***2019***	***2020***	***2021***	***2022***	***2023***
Olin Corporation	100	89	134	320	299	310
S&P 500 Index	100	132	156	200	164	207
S&P 500 Chemicals Index	100	122	144	181	161	179
S&P Composite 1500 Commodity Chemicals Index	100	113	121	142	134	155

Data is for the five-year period from December 31, 2018, through December 31, 2023. The cumulative return includes reinvestment of dividends. The performance graph assumes an investment of $100 on December 31, 2018.

FIVE-YEAR SUMMARY OF SELECTED FINANCIAL DATA

	2023	2022	2021	2020	2019
Operations	($ and shares in millions, except per share data)				
Sales	$ 6,833	$ 9,376	$ 8,911	$ 5,758	$ 6,110
Cost of goods sold	5,667	7,194	6,616	5,375	5,439
Selling and administrative	407	394	417	422	417
Restructuring charges	90	25	28	9	76
Goodwill impairment	—	—	—	700	—
Other operating income	43	16	1	1	—
Interest expense	181	144	348	293	243
Interest income and other income	4	2	—	1	12
Non-operating pension income	24	39	36	19	16
Income (loss) before taxes	559	1,676	1,539	(1,020)	(37)
Income tax provision (benefit)	107	349	242	(50)	(26)
Net income (loss)	452	1,327	1,297	(970)	(11)
Net loss attributable to noncontrolling interests	(8)	—	—	—	—
Net income (loss) attributable to Olin Corporation	$ 460	$ 1,327	$ 1,297	$ (970)	$ (11)
Financial Position					
Cash and cash equivalents	$ 170	$ 194	$ 181	$ 190	$ 221
Working capital, excluding cash and cash equivalents	275	401	386	329	411
Property, plant and equipment, net	2,520	2,674	2,914	3,171	3,324
Total assets	7,713	8,044	8,518	8,271	9,188
Capitalization:					
Short-term debt	79	10	201	26	2
Long-term debt	2,591	2,571	2,578	3,838	3,339
Shareholders' equity	2,268	2,544	2,652	1,451	2,418
Total capitalization	$ 4,938	$ 5,125	$ 5,431	$ 5,315	$ 5,759
Total debt to total capitalization	54.1 %	50.4 %	51.2 %	72.7 %	58.0 %
Per Share Data					
Net income (loss) attributable to Olin Corporation:					
Basic	$ 3.66	$ 9.16	$ 8.15	$ (6.14)	$ (0.07)
Diluted	$ 3.57	$ 8.94	$ 7.96	$ (6.14)	$ (0.07)
Cash dividends paid per common share	$ 0.80	$ 0.80	$ 0.80	$ 0.80	$ 0.80
Other					
Capital expenditures	$ 236	$ 237	$ 201	$ 299	$ 386
Depreciation and amortization	533	599	583	568	597
Common stock dividends paid	101	116	128	126	129
Repurchases of common stock	711	1,351	252	—	146
Current ratio	1.3	1.4	1.3	1.4	1.6
Effective tax rate	19.2 %	20.8 %	15.7 %	4.9 %	69.4 %
Average common shares outstanding - diluted	128.8	148.5	163.0	157.9	162.3
Employees(1)	7,326	7,780	7,750	8,000	6,500

(1) Beginning October 1, 2020, total employees include employees at Lake City which is a government-owned, contractor-operated facility.

Item 6. [RESERVED]

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

BUSINESS BACKGROUND

Olin Corporation (Olin) is a Virginia corporation, incorporated in 1892, having its principal executive offices in Clayton, MO. We are a leading vertically integrated global manufacturer and distributor of chemical products and a leading U.S. manufacturer of ammunition. Our operations are concentrated in three business segments: Chlor Alkali Products and Vinyls, Epoxy and Winchester. All of our business segments are capital-intensive manufacturing businesses. The Chlor Alkali Products and Vinyls segment manufactures and sells chlorine and caustic soda, ethylene dichloride and vinyl chloride monomer, methyl chloride, methylene chloride, chloroform, carbon tetrachloride, perchloroethylene, hydrochloric acid, hydrogen, bleach products and potassium hydroxide. The Epoxy segment produces and sells a full range of epoxy materials and precursors, including aromatics (acetone and phenol), allyl chloride, epichlorohydrin, liquid epoxy resins, solid epoxy resins and systems and growth products such as converted epoxy resins and additives. The Winchester segment produces and sells sporting ammunition, reloading components, small caliber military ammunition and components, industrial cartridges and clay targets.

RECENT DEVELOPMENTS AND HIGHLIGHTS

2023 Overview

Net income was $460.2 million for 2023 compared to $1,326.9 million for 2022, a decrease of $866.7 million, or 65%. The decrease in net income from the prior year was primarily due to lower operating results across all of our business segments. Net income for 2023 also reflects a pretax gain of $27.0 million from the sale of our domestic private trucking fleet and operations. Diluted net income per share was $3.57 for 2023 compared to $8.94 for 2022, a decrease of $5.37 per share, or 60%. The decrease in diluted net income per share was positively impacted by share repurchases throughout 2023.

On October 1, 2023, Olin acquired the assets of White Flyer from Reagent for $63.9 million. White Flyer designs, manufactures and sells recreational trap, skeet, international and sporting clay targets and has been included in our Winchester segment.

On January 10, 2023, BWA, our joint venture with Mitsui, began operations. BWA is an independent global trader of ECU-based derivatives, focused on globally traded caustic soda and EDC. Olin holds 51% interest and exercises control in BWA, and the joint venture is consolidated in our financial statements in our Chlor Alkali Products and Vinyls segment, with Mitsui's 49% interest in BWA classified as noncontrolling interest. All intercompany accounts and transactions are eliminated in consolidation.

Chlor Alkali Products and Vinyls reported segment income of $664.2 million for 2023 compared to $1,181.3 million for 2022. Chlor Alkali Products and Vinyls segment results were lower than in the prior year due to lower volumes and lower pricing, partially offset by lower raw material and operating costs. The Chlor Alkali Products and Vinyls 2023 segment results were also negatively impacted by the second quarter's maintenance turnaround and related operating issues at our vinyl chloride monomer plant at the Freeport, TX facility, which resulted in higher costs and reduced profit from lost sales of $104.2 million. The vinyl chloride monomer plant resumed normal operations in the latter half of the third quarter.

Epoxy reported segment loss of $31.0 million for 2023 compared to segment income of $388.5 million for 2022. Epoxy segment results were lower than in the prior year primarily due to lower volumes and lower product pricing. Epoxy segment results in 2023 have been impacted by significant exports out of Asia into the European and North American markets, negatively impacting pricing and volumes. Partially offsetting the lower volumes and pricing were lower raw material and operating costs.

Winchester reported segment income of $255.6 million for 2023 compared to $372.9 million for 2022. Winchester segment results were lower than in the prior year primarily due to lower commercial volumes and pricing, partially offset by higher domestic and international military sales.

Liquidity and Share Repurchases

During 2023, we repurchased and retired 13.3 million shares of common stock at a total value of $711.3 million. As of December 31, 2023, we have $997.0 million of remaining authorized common stock to be repurchased under the 2022 Repurchase Authorization program.

During 2023, we had net borrowings of $85.9 million with $68.0 million borrowed under our Senior Revolving Credit Facility and $28.5 million borrowed under our Receivables Financing Agreement.

CONSOLIDATED RESULTS OF OPERATIONS

	Years ended December 31,		
	2023	2022	2021
	($ in millions, except per share data)		
Sales	$ 6,833.0	$ 9,376.2	$ 8,910.6
Cost of goods sold	5,667.5	7,194.3	6,616.4
Gross margin	1,165.5	2,181.9	2,294.2
Selling and administrative	406.7	393.9	416.9
Restructuring charges	89.6	25.3	27.9
Other operating income	42.9	16.3	1.4
Operating income	712.1	1,779.0	1,850.8
Interest expense	181.1	143.9	348.0
Interest income	4.3	2.2	0.2
Non-operating pension income	24.0	38.7	35.7
Income before taxes	559.3	1,676.0	1,538.7
Income tax provision	107.3	349.1	242.0
Net income	452.0	1,326.9	1,296.7
Net loss attributable to noncontrolling interests	(8.2)	—	—
Net income attributable to Olin Corporation	$ 460.2	$ 1,326.9	$ 1,296.7
Net income attributable to Olin Corporation per common share:			
Basic	$ 3.66	$ 9.16	$ 8.15
Diluted	$ 3.57	$ 8.94	$ 7.96

2023 Compared to 2022

Sales for 2023 were $6,833.0 million compared to $9,376.2 million in 2022, a decrease of $2,543.2 million, or 27%. Epoxy sales decreased by $1,361.3 million, primarily due to lower volumes, including the closure of our cumene facility and one of our bisphenol production lines, and lower product pricing. Chlor Alkali Products and Vinyls sales decreased by $1,089.9 million, primarily due to lower volumes, partially offset by products sold by BWA. Winchester sales decreased by $92.0 million, primarily due to lower commercial sales volumes, partially offset by higher domestic and international military sales.

Gross margin in 2023 decreased $1,016.4 million from 2022. Chlor Alkali Products and Vinyls gross margin decreased by $483.0 million primarily due to lower volumes. Epoxy gross margin decreased by $425.4 million primarily due to lower volumes and lower product pricing. Winchester gross margin decreased by $112.5 million, primarily due to lower commercial volumes. Gross margin as a percentage of sales decreased to 17% in 2023 from 23% in 2022.

Selling and administrative expenses in 2023 increased $12.8 million, or 3%, from 2022. The increase was primarily due to higher costs associated with BWA of $23.9 million, partially offset by lower legal and legal-related settlement expenses of $7.4 million and a favorable foreign currency impact of $5.5 million. Selling and administrative expenses as a percentage of sales increased to 6% in 2023 from 4% in 2022.

Restructuring charges for 2023 were $89.6 million compared to $25.3 million in 2022. The increase in charges was primarily due to our actions to reconfigure our global Epoxy asset footprint to optimize the most productive and cost-effective assets to support our strategic operating model, which resulted in restructuring charges of $73.4 million for 2023.

Other operating income for 2023 included a gain of $27.0 million from the sale of our domestic private trucking fleet and operations and an insurance recovery of $15.6 million associated with a second quarter 2022 business interruption at our Plaquemine, LA Chlor Alkali Products and Vinyls facility. Other operating income for 2022 included $13.0 million of gains from the sale of two former manufacturing facilities.

Interest expense in 2023 increased $37.2 million from 2022, primarily due to higher average interest rates. Interest expense for 2023 and 2022 was reduced by capitalized interest of $2.8 million and $3.1 million, respectively.

Non-operating pension income includes all components of pension and other postretirement income (costs) other than service costs. Non-operating pension income was lower in 2023 from the prior year primarily due to an increase in the discount rate used to determine interest costs, partially offset by lower actuarial losses recognized to income.

The effective tax rate for 2023 included benefits associated with a legal entity liquidation, prior year tax positions, stock-based compensation, remeasurement of deferred taxes due to a decrease in our state effective tax rates and foreign rate changes, and from a change in tax contingencies, and an expense from a net increase in the valuation allowance related to deferred tax assets in foreign jurisdictions. These factors resulted in a net $29.4 million tax benefit. Excluding these items, the effective tax rate for 2023 of 24.4% was higher than the 21.0% U.S. federal statutory rate primarily due to state taxes, an increase in the valuation allowance related to losses in foreign jurisdictions and foreign income inclusions, partially offset by foreign rate differential and favorable permanent salt depletion deductions. The effective tax rate for 2022 included benefits associated with a legal entity liquidation, prior year tax positions, stock-based compensation, and remeasurement of deferred taxes due to a decrease in our state effective tax rates, and expenses associated with a net increase in the valuation allowance related to state tax credits and a change in tax contingencies. These factors resulted in a net $60.2 million tax benefit. Excluding these items, the effective tax rate for 2022 of 24.4% was higher than the 21.0% U.S. federal statutory rate primarily due to state taxes, an increase in the valuation allowance related to losses in foreign jurisdictions and foreign income taxes, partially offset by foreign income exclusions and favorable permanent salt depletion deductions.

2022 Compared to 2021

Sales for 2022 were $9,376.2 million compared to $8,910.6 million in 2021, an increase of $465.6 million, or 5%. Chlor Alkali Products and Vinyls sales increased by $944.2 million, primarily due to higher pricing across all products, except vinyls intermediates, partially offset by lower volumes. Winchester sales increased by $16.9 million, primarily due to increased commercial ammunition pricing partially offset by lower volumes. Epoxy sales decreased by $495.5 million, primarily due to lower volumes partially offset by higher product prices.

Gross margin in 2022 decreased $112.3 million from 2021. Epoxy gross margin decreased by $238.4 million, and Winchester gross margin decreased by $36.2 million, primarily due to lower volumes and higher raw material and operating costs, partially offset by higher product pricing. Chlor Alkali Products and Vinyls gross margin increased by $185.2 million, primarily due to higher pricing, partially offset by higher raw material and operating costs and lower volumes. Gross margin as a percentage of sales decreased to 23% in 2022 from 26% in 2021.

Selling and administrative expenses in 2022 decreased $23.0 million, or 6%, from 2021. The decrease was primarily due to the lower variable incentive compensation expense of $35.4 million, which includes mark-to-market adjustments on stock-based compensation expense, partially offset by higher legal and legal-related settlement expense of $7.1 million and an unfavorable foreign currency impact of $7.5 million. Selling and administrative expenses as a percentage of sales decreased to 4% in 2022 from 5% in 2021.

Restructuring charges for 2022 were $25.3 million compared to $27.9 million in 2021. The decrease in charges was primarily due to a productivity initiative to align the organization with our new operating model and improve efficiencies, which was completed during the second quarter of 2021, which resulted in pretax restructuring charges of $10.1 million for 2021. Partially offsetting this action, during the fourth quarter 2022, we committed and completed a plan to close down one of our bisphenol production lines at our Stade, Germany site. This action resulted in pretax restructuring charges of $8.0 million for 2022.

Other operating income for 2022 included $13.0 million of gains from the sale of two former manufacturing facilities.

Interest expense in 2022 decreased by $204.1 million from 2021. Interest expense for 2021 included $137.7 million of bond redemption premiums and $14.5 million for write-off of deferred debt issuance costs, write-off of bond original issue discount, and recognition of deferred fair value interest rate swap losses. Interest expense for 2022 and 2021 was reduced by capitalized interest of $3.1 million and $3.2 million, respectively. Without these items, interest expense decreased by $52.0 million, primarily due to a lower level of debt outstanding and lower average interest rates.

Non-operating pension income includes all components of pension and other postretirement income (costs) other than service costs.

The effective tax rate for 2022 included benefits associated with a legal entity liquidation, prior year tax positions, stock-based compensation, and remeasurement of deferred taxes due to a decrease in our state effective tax rates, and expenses associated with a net increase in the valuation allowance related to state tax credits and a change in tax contingencies. These factors resulted in a net $60.2 million tax benefit. Excluding these items, the effective tax rate for 2022 of 24.4% was higher than the 21.0% U.S. federal statutory rate primarily due to state taxes, an increase in the valuation allowance related to losses in foreign jurisdictions and foreign income taxes, partially offset by foreign income exclusions and favorable permanent salt depletion deductions. The effective tax rate for 2021 included benefits from a net decrease in the valuation allowance related to deferred tax assets in foreign jurisdictions, domestic tax credits, prior year tax positions, stock-based compensation, and expenses from remeasurement of deferred taxes due to an increase in our state effective tax rates and a change in tax contingencies. These factors resulted in a net $103.6 million tax benefit. Excluding these items, the effective tax rate for 2021 of 22.5% was higher than the 21.0% U.S. federal statutory rate primarily due to state taxes, foreign income inclusions and foreign rate differential, partially offset by a net decrease in the valuation allowance related to utilization of losses in foreign jurisdictions and favorable permanent salt depletion deductions.

SEGMENT RESULTS

We define segment results as income (loss) before interest expense, interest income, other operating income (expense), non-operating pension income, other income and income taxes. We have three operating segments: Chlor Alkali Products and Vinyls, Epoxy and Winchester. The three operating segments reflect the organization used by our management for purposes of allocating resources and assessing performance. Chlorine and caustic soda used in our Epoxy segment is transferred at cost from the Chlor Alkali Products and Vinyls segment.

	Years ended December 31,		
	2023	2022	2021
Sales:	($ in millions)		
Chlor Alkali Products and Vinyls	$ 3,995.1	$ 5,085.0	$ 4,140.8
Epoxy	1,329.2	2,690.5	3,186.0
Winchester	1,508.7	1,600.7	1,583.8
Total sales	$ 6,833.0	$ 9,376.2	$ 8,910.6
Income before taxes:			
Chlor Alkali Products and Vinyls	$ 664.2	$ 1,181.3	$ 997.8
Epoxy	(31.0)	388.5	616.5
Winchester	255.6	372.9	412.1
Corporate/Other:			
Environmental expense(1)	(23.7)	(23.2)	(14.0)
Other corporate and unallocated costs	(106.3)	(131.5)	(135.1)
Restructuring charges	(89.6)	(25.3)	(27.9)
Other operating income(2)	42.9	16.3	1.4
Interest expense(3)	(181.1)	(143.9)	(348.0)
Interest income	4.3	2.2	0.2
Non-operating pension income	24.0	38.7	35.7
Income before taxes	$ 559.3	$ 1,676.0	$ 1,538.7

(1) Environmental expense for the years ended December 31, 2023, 2022 and 2021, included $6.4 million, $1.0 million and $2.2 million, respectively, of insurance recoveries for environmental costs incurred and expensed in prior periods. Environmental expense is included in cost of goods sold in the consolidated statements of operations.

(2) Other operating income for the year ended December 31, 2023, included a gain of $27.0 million from the sale of our domestic private trucking fleet and operations and an insurance recovery of $15.6 million associated with a second quarter 2022 business interruption at our Plaquemine, LA, Chlor Alkali Products and Vinyls facility. Other operating income for the year ended December 31, 2022, included $13.0 million of gains from the sale of two former manufacturing facilities. Other operating income for the year ended December 31, 2021, included a $1.4 million gain from the sale of a terminal facility.

(3) Interest expense for the year ended December 31, 2021, included a loss on extinguishment of debt of $152.2 million which includes bond redemption premiums, write-off of deferred debt issuance costs, bond original issue discount, and recognition of deferred fair value interest rate swap losses associated with the optional prepayment of existing debt. Interest expense was reduced by capitalized interest of $2.8 million, $3.1 million and $3.2 million for the years ended December 31, 2023, 2022 and 2021, respectively.

Chlor Alkali Products and Vinyls

2023 Compared to 2022

Chlor Alkali Products and Vinyls sales for 2023 were $3,995.1 million compared to $5,085.0 million in 2022, a decrease of $1,089.9 million, or 21%. The sales decrease was primarily due to lower volumes across all products and lower prices, primarily caustic soda and EDC, partially offset by products sold by BWA.

Chlor Alkali Products and Vinyls reported segment income of $664.2 million for 2023 compared to $1,181.3 million for 2022, a decrease of $517.1 million. Chlor Alkali Products and Vinyls operating results were negatively impacted by lower volumes across all products ($846.4 million) and lower prices, primarily caustic soda and EDC ($51.4 million), partially offset by lower raw material and operating costs ($341.0 million), primarily lower natural gas and electrical power costs, and decreased costs associated with product purchased from other parties ($39.7 million). The Chlor Alkali Products and Vinyls segment results were also negatively impacted by higher costs and reduced profit from lost sales associated with operating issues related to the second quarter's maintenance turnaround at our vinyl chloride monomer plant at the Freeport, TX facility. Chlor Alkali Products and Vinyls segment results included depreciation and amortization expense of $440.7 million and $482.2 million in 2023 and 2022, respectively.

2022 Compared to 2021

Chlor Alkali Products and Vinyls sales for 2022 were $5,085.0 million compared to $4,140.8 million in 2021, an increase of $944.2 million, or 23%. The sales increase was primarily due to higher pricing across all products except vinyls intermediates, partially offset by lower volumes.

Chlor Alkali Products and Vinyls reported segment income of $1,181.3 million for 2022 compared to $997.8 million for 2021, an increase of $183.5 million. Chlor Alkali Products and Vinyls 2021 operating results were favorably impacted by Winter Storm Uri ($121.4 million), which includes a net one-time benefit associated with Olin's customary financial hedges and contracts maintained to provide protection from rapid and dramatic changes in energy costs, partially offset by unabsorbed fixed manufacturing costs and storm-related maintenance costs. Without the impact of Winter Storm Uri, the increase in segment results of $304.9 million was due to higher prices across all products, except vinyls intermediates ($1,495.9 million), partially offset by higher raw material and operating costs ($491.4 million), primarily increased natural gas and electrical power costs, lower volumes across all products ($479.2 million) and increased costs associated with product purchased from other parties ($220.4 million). Chlor Alkali Products and Vinyls segment results included depreciation and amortization expense of $482.2 million and $466.4 million in 2022 and 2021, respectively.

Epoxy

2023 Compared to 2022

Epoxy sales were $1,329.2 million for 2023 compared to $2,690.5 million in 2022, a decrease of $1,361.3 million, or 51%. The sales decrease was primarily due to the closure of our cumene facility and one of our bisphenol production lines ($649.4 million), lower product prices ($419.6 million), lower volumes ($291.9 million) and an unfavorable effect of foreign currency translation ($0.4 million).

Epoxy reported segment loss of $31.0 million for 2023 compared to segment income of $388.5 million for 2022, a decrease of $419.5 million. The decrease in segment results was due to lower product prices ($419.6 million) and lower volumes ($138.6 million), which were both impacted by significant exports out of Asia into the European and North American markets, partially offset by lower raw material costs and operating costs ($138.7 million). A significant percentage of our Euro denominated sales are of products manufactured within Europe. As a result, the impact of foreign currency translation on revenue is primarily offset by the impact of foreign currency translation on raw materials and manufacturing costs also denominated in Euros. Epoxy segment results included depreciation and amortization expense of $57.4 million and $83.3 million in 2023 and 2022, respectively.

2022 Compared to 2021

Epoxy sales were $2,690.5 million for 2022 compared to $3,186.0 million for 2021, a decrease of $495.5 million, or 16%. The sales decrease was due to lower volumes ($942.1 million) and an unfavorable effect of foreign currency translation ($144.1 million), partially offset by higher product prices ($590.7 million).

Epoxy reported segment income of $388.5 million for 2022 compared to $616.5 million for 2021, a decrease of $228.0 million. Epoxy 2021 operating results were unfavorably impacted by Winter Storm Uri ($21.5 million), which included unabsorbed fixed manufacturing costs and storm-related maintenance costs. Without the impact of Winter Storm Uri, the decrease in segment results of $249.5 million was due to lower volumes ($460.5 million), higher raw material costs ($260.3 million), primarily benzene and propylene, higher operating costs ($106.5 million), primarily increased natural gas and electrical power costs, and a net unfavorable foreign currency impact ($12.9 million). These decreases were partially offset by higher product prices ($590.7 million). A significant percentage of our Euro denominated sales are of products manufactured within Europe. As a result, the impact of foreign currency translation on revenue is primarily offset by the impact of foreign currency translation on raw materials and manufacturing costs also denominated in Euros. Epoxy segment results included depreciation and amortization expense of $83.3 million and $86.1 million in 2022 and 2021, respectively.

Winchester

2023 Compared to 2022

Winchester sales were $1,508.7 million for 2023 compared to $1,600.7 million in 2022, a decrease of $92.0 million, or 6%. The decrease was due to lower ammunition sales to commercial customers ($272.6 million) and law enforcement agencies ($7.5 million), partially offset by higher sales to domestic and international military customers ($188.1 million). The lower commercial sales were primarily due to lower volumes, partially offset by fourth quarter 2023 sales from White Flyer.

Winchester reported segment income of $255.6 million for 2023 compared to $372.9 million for 2022, a decrease of $117.3 million. The decrease in segment results was due to lower volumes and an unfavorable product mix ($61.4 million), lower product pricing ($40.0 million), and higher commodity and operating costs ($15.9 million). Winchester segment results included depreciation and amortization expense of $27.2 million and $24.6 million in 2023 and 2022, respectively.

2022 Compared to 2021

Winchester sales were $1,600.7 million for 2022 compared to $1,583.8 million for 2021, an increase of $16.9 million, or 1%. The increase was due to higher sales to military customers ($23.7 million) and law enforcement agencies ($18.2 million) partially offset by lower commercial sales ($25.0 million). The lower commercial sales were primarily due to lower volumes, partially offset by higher pricing. During 2022, Winchester experienced a transition in its commercial ammunition business from refilling depleted supply chains to filling inventories at the rate of its customers' sales. In some cases, customers inventories became too high, so Winchester chose to preserve value by manufacturing and selling less commercial ammunition.

Winchester reported segment income of $372.9 million for 2022 compared to $412.1 million for 2021, a decrease of $39.2 million. The decrease in segment results was due to higher commodity and operating costs ($86.9 million) and lower volumes ($80.8 million), partially offset by higher product pricing ($128.4 million). Winchester segment results included depreciation and amortization expense of $24.6 million and $23.3 million in 2022 and 2021, respectively.

Corporate/Other

2023 Compared to 2022

For the years ended December 31, 2023 and 2022, environmental expense included $6.4 million and $1.0 million, respectively, of insurance recoveries for environmental costs incurred and expensed in prior periods. Without these recoveries, charges to income for environmental investigatory and remedial activities for the year ended December 31, 2023, would have been $30.1 million, compared to $24.2 million for the year ended December 31, 2022. These charges related primarily to expected future investigatory and remedial activities associated with past manufacturing operations and former waste disposal sites.

For 2023, other corporate and unallocated costs were $106.3 million compared to $131.5 million for 2022, a decrease of $25.2 million, or 19%. The decrease was primarily due to lower legal and legal-related settlement expenses ($13.8 million), a favorable foreign currency impact ($5.5 million) and lower variable incentive compensation costs ($4.2 million), which includes mark-to-market adjustments on stock-based compensation expense.

2022 Compared to 2021

For the years ended December 2022 and 2021, environmental expense included $1.0 million and $2.2 million, respectively, of insurance recoveries for environmental costs incurred and expensed in prior periods. Without these recoveries, charges to income for environmental investigatory and remedial activities for the year ended December 31, 2022, would have been $24.2 million, compared to $16.2 million for the year ended December 31, 2021. These charges related primarily to expected future investigatory and remedial activities associated with past manufacturing operations and former waste disposal sites.

For 2022, other corporate and unallocated costs were $131.5 million compared to $135.1 million for 2021, a decrease of $3.6 million, or 3%. The decrease was primarily due to lower variable incentive compensation costs ($27.9 million), which includes mark-to-market adjustments on stock-based compensation expense, partially offset by higher legal and legal-related settlement expenses ($7.6 million) and an unfavorable foreign currency impact ($7.1 million).

Restructurings

As a result of weak global resin demand and higher cost structures within the European region, we began a review of our global Epoxy asset footprint to optimize the most productive and cost-effective assets to support our strategic operating model. As part of this review, we announced operational cessations in the fourth quarter of 2022 and the first half of 2023 (collectively, Epoxy Optimization Plan).

On June 20, 2023, we announced we had made the decision to cease all remaining operations at our Gumi, South Korea facility, reduce epoxy resin capacity at our Freeport, TX facility, and reduce our sales and support staffing across Asia. These actions were substantially completed by December 31, 2023. On March 21, 2023, we announced we had made the decision to cease operations at our cumene facility in Terneuzen, Netherlands and solid epoxy resin production at our facilities in Gumi, South Korea and Guaruja, Brazil. The closures were completed in the first quarter 2023. During the fourth quarter of 2022, we committed to and completed a plan to close down one of our bisphenol production lines at our Stade, Germany site. For the year ended December 31, 2023 and 2022, we recorded pretax restructuring charges of $73.4 million and $8.0 million, respectively, for the write-off of equipment and facility costs, employee severance and related benefit costs, contract termination costs and facility exit costs related to these actions. We expect to incur additional restructuring charges through 2025 of approximately $25 million related to these actions.

In 2023 and 2022, Olin incurred charges of $16.2 million and $17.3 million, respectively, associated with other previously disclosed restructuring plans. We expect to incur additional restructuring charges through 2027 of approximately $45 million related to these actions.

2024 OUTLOOK

In the fourth quarter of 2023, we executed an initiative which lowered our participation in ECU markets and adjusted our operating rates to mitigate the declining pricing environment we experienced during the second half of 2023. We expect this initiative will continue through most of the first quarter 2024. Our fourth quarter Chlor Alkali Products and Vinyls operating results were negatively impacted by this initiative. We expect the first quarter 2024 operating results from our Chemicals business to be slightly higher than the fourth quarter 2023. We also expect our Winchester business first quarter 2024 results to increase sequentially from fourth quarter 2023. Overall, we expect Olin’s first quarter 2024 operating results to be slightly higher than the fourth quarter 2023 levels.

Other corporate and unallocated costs in 2024 are expected to be higher than the $106.3 million in 2023.

During 2024, we anticipate environmental expenses in the $25 million to $35 million range, compared to $23.7 million in 2023.

We expect non-operating pension income in 2024 to be similar to the $24.0 million in 2023. Based on our plan assumptions and estimates, we will not be required to make any cash contributions to our domestic qualified defined benefit pension plan in 2024. We have several international qualified defined benefit pension plans for which we anticipate cash contributions of less than $5 million in 2024.

In 2024, we currently expect our capital spending to be in the $225 million to $250 million range and we expect to make payments under other long-term supply contracts in the $25 million to $50 million range for energy modernization on the U.S. Gulf Coast. We expect 2024 depreciation and amortization expense to be in the $500 million to $525 million range.

We currently believe the 2024 effective tax rate will be in the 25% to 30% range and our cash tax rate to be in the 35% to 40% range as a result of previously deferred international tax payments expected to be made in 2024.

PENSION AND POSTRETIREMENT BENEFITS

We recorded an after-tax charge of $13.2 million ($18.1 million pretax) to shareholders’ equity as of December 31, 2023, for our pension and other postretirement plans. This charge primarily reflected a 30-basis point decrease in the domestic pension plans’ discount rate and a 50-basis point decrease in the international defined benefit pension plans’ discount rate, partially offset by a favorable performance on plan assets during 2023. In 2022, we recorded an after-tax benefit of $46.8 million ($72.1 million pretax) to shareholders’ equity as of December 31, 2022, for our pension and other postretirement plans. This benefit primarily reflected a 260-basis point increase in the domestic pension plans’ discount rate and a 230-basis point increase in the international defined benefit pension plans’ discount rate, partially offset by unfavorable performance on plan assets during 2022. In 2021, we recorded an after-tax benefit of $188.5 million ($249.7 million pretax) to shareholders’ equity as of December 31, 2021, for our pension and other postretirement plans. This benefit primarily reflected a 50-basis point increase in the domestic pension plans’ discount rate and favorable performance on plan assets during 2021.

Based on our plan assumptions and estimates, we will not be required to make any cash contributions to the domestic qualified defined benefit pension plan at least through 2024.

In connection with international qualified defined benefit pension plans, we made cash contributions of $1.0 million, $1.3 million and $1.1 million in 2023, 2022 and 2021, respectively, and we anticipate less than $5 million of cash contributions to international qualified defined benefit pension plans in 2024.

At December 31, 2023, the projected benefit obligation of $2,144.5 million exceeded the market value of assets in our qualified defined benefit pension plans by $226.5 million, as calculated under Accounting Standards Codification (ASC) 715 "Compensation—Retirement Benefits”.

Components of net periodic benefit (income) costs were:

	Years ended December 31,		
	2023	2022	2021
Net Periodic Benefit (Income) Costs	($ in millions)		
Pension benefits	$ (20.7)	$ (33.0)	$ (27.5)
Other postretirement benefit costs	3.1	3.8	4.5

The service cost component of net periodic benefit (income) costs related to employees of the operating segments are allocated to the operating segments based on their respective estimated census data.

We have included additional information with respect our defined benefit pension plans and other postretirement benefit plans within Note 13 "Pension Plans" and Note 14 "Postretirement Benefits" of our Notes to Consolidated Financial Statements.

ENVIRONMENTAL MATTERS

	Years ended December 31,		
	2023	2022	2021
Cash Outlays	($ in millions)		
Remedial and investigatory spending (charged to reserve)	$ 25.9	$ 24.6	$ 16.4
Capital spending	1.3	1.5	4.1
Plant operations (charged to cost of goods sold)	176.2	178.8	194.9
Total cash outlays	$ 203.4	$ 204.9	$ 215.4

Cash outlays for remedial and investigatory activities associated with former waste sites and past operations were not charged to income but instead were charged to reserves established for such costs identified and expensed to income in prior years. Cash outlays for normal plant operations for the disposal of waste and the operation and maintenance of pollution control equipment and facilities to ensure compliance with mandated and voluntarily imposed environmental quality standards were charged to income.

Total environmental-related cash outlays for 2024 are estimated to be approximately $210 million, of which approximately $25 million to $35 million is expected to be spent on investigatory and remedial efforts, approximately $5 million on capital projects and approximately $175 million on normal plant operations. Historically, we have funded our environmental capital expenditures through cash flow from operations and expect to do so in the future.

Annual environmental-related cash outlays for site investigation and remediation, capital projects and normal plant operations are expected to range between $200 million to $220 million over the next several years, $25 million to $35 million of which is for investigatory and remedial efforts, which are expected to be charged against reserves recorded on our consolidated balance sheet. While we do not anticipate a material increase in the projected annual level of our environmental-related cash outlays for site investigation and remediation, there is always the possibility that such an increase may occur in the future in view of the uncertainties associated with environmental exposures.

Our liabilities for future environmental expenditures were as follows:

	December 31,	
	2023	2022
Environmental Liabilities	($ in millions)	
Beginning balance	$ 146.6	$ 147.3
Charges to income	30.1	24.2
Remedial and investigatory spending	(25.9)	(24.6)
Other	2.8	(0.3)
Ending balance	$ 153.6	$ 146.6

As is common in our industry, we are subject to environmental laws and regulations related to the use, storage, handling, generation, transportation, emission, discharge, disposal and remediation of, and exposure to, hazardous and non-hazardous substances and wastes in all of the countries in which we do business.

The establishment and implementation of national, state or provincial and local standards to regulate air, water and land quality affect substantially all of our manufacturing locations around the world. Laws providing for regulation of the manufacture, transportation, use and disposal of hazardous and toxic substances, and remediation of contaminated sites, have imposed additional regulatory requirements on industry, particularly the chemicals industry. In addition, implementation of environmental laws has required and will continue to require new capital expenditures and will increase plant operating costs. We employ waste minimization and pollution prevention programs at our manufacturing sites.

We are party to various government and private environmental actions associated with past manufacturing facilities and former waste disposal sites. Associated costs of investigatory and remedial activities are provided for in accordance with generally accepted accounting principles governing probability and the ability to reasonably estimate future costs. Our ability to estimate future costs depends on whether our investigatory and remedial activities are in preliminary or advanced stages. With respect to unasserted claims, we accrue liabilities for costs that, in our experience, we expect to incur to protect our interests against those unasserted claims. Our accrued liabilities for unasserted claims amounted to $11.6 million at December 31, 2023. With respect to asserted claims, we accrue liabilities based on remedial investigation, feasibility study, remedial action and operation, maintenance and monitoring (OM&M) expenses that, in our experience, we expect to incur in connection with the asserted claims. Required site OM&M expenses are estimated and accrued in their entirety for required periods not exceeding 30 years, which reasonably approximates the typical duration of long-term site OM&M.

Environmental provisions charged to income, which are included in cost of goods sold, were as follows:

	Years ended December 31,		
	2023	2022	2021
Environmental Expense	($ in millions)		
Provisions charged to income	$ 30.1	$ 24.2	$ 16.2
Insurance recoveries[(1)]	(6.4)	(1.0)	(2.2)
Environmental expense	$ 23.7	$ 23.2	$ 14.0

(1) Insurance recoveries for costs incurred and expensed in prior periods.

These charges relate primarily to remedial and investigatory activities associated with past manufacturing operations and former waste disposal sites and may be material to operating results in future years.

We have included additional information with respect to environmental matters within Note 21, "Environmental," of our Notes to Consolidated Financial Statements.

LEGAL MATTERS AND CONTINGENCIES

Please see the discussion of legal matters and contingencies within Item 8, under the heading of "Legal Matters" within Note 23 "Commitments and Contingencies."

LIQUIDITY AND CAPITAL RESOURCES

Cash Flow Data

	Years ended December 31,		
	2023	2022	2021
Provided by (Used for)	($ in millions)		
Net operating activities	$ 974.3	$ 1,921.9	$ 1,741.0
Capital expenditures	(236.0)	(236.9)	(200.6)
Business acquired in purchase transaction, net of cash acquired	(63.9)	—	—
Payments under other long-term supply contracts	(64.5)	(37.7)	—
Proceeds from disposition of property, plant and equipment	28.8	14.9	3.2
Net investing activities	(340.8)	(259.7)	(197.4)
Long-term debt borrowings (repayments), net	85.9	(201.1)	(1,103.1)
Debt early redemption premiums	—	—	(137.7)
Common stock repurchased and retired	(711.3)	(1,350.7)	(251.9)
Stock options exercised	25.4	25.7	72.4
Dividends paid	(101.0)	(116.2)	(127.8)
Contributions received from noncontrolling interests	44.1	—	—
Net financing activities	(656.9)	(1,646.7)	(1,552.0)

Operating Activities

For 2023, cash provided by operating activities decreased by $947.6 million from 2022, primarily due to a decrease in operating results compared with the prior year. For 2023, working capital decreased $68.6 million, compared to a decrease of $65.2 million in 2022. Inventories decreased by $94.4 million from December 31, 2022, primarily due to inventory destocking efforts. A portion of the working capital decrease in 2023 was offset by incremental working capital associated with BWA.

For 2022, cash provided by operating activities increased by $180.9 million from 2021, primarily due to a decrease in working capital compared with the prior year. For 2022, working capital decreased $65.2 million, compared to an increase of $243.1 million in 2021. Receivables decreased by $160.8 million from December 31, 2021, primarily as a result of lower sales in the fourth quarter of 2022 compared to fourth quarter of 2021. Inventories increased by $86.3 million from December 31, 2021, primarily as a result of increased raw material costs and increased inventory quantities within our Winchester and Epoxy businesses.

Investing Activities

Capital spending was $236.0 million and $236.9 million in 2023 and 2022, respectively. In 2024, we expect our capital spending to be in the $225 million to $250 million range. Our capital spending forecast represents normal capital spending to maintain our current operating facilities.

On October 1, 2023, Olin acquired the assets of White Flyer from Reagent for $63.9 million. The acquisition was financed with cash on hand.

For the year ended December 31, 2023 and 2022, payments of $64.5 million and $37.7 million, respectively, were made under other long-term supply contracts for energy modernization projects on the U.S. Gulf Coast and we expect to make payments in the $25.0 million to $50.0 million range in 2024.

For the year ended December 31, 2023, we received $28.5 million of cash proceeds from the sale of our domestic private trucking fleet and operations. For the year ended December 31, 2022, we received proceeds of $14.9 million from the sale of two former manufacturing facilities.

Financing Activities

During 2023 and 2022, activity of our outstanding debt included:

	Long-term Debt Borrowings (Repayments) for the Year Ended December 31,	
	2023	2022
Debt Instrument	($ in millions)	
Borrowings		
Senior Revolving Credit Facility	$ 375.0	$ 320.0
Receivables Financing Agreement	332.7	95.0
Total borrowings	707.7	415.0
Repayments		
5.50% senior notes, due 2022 (2022 Notes)	—	(200.0)
Senior Revolving Credit Facility	(307.0)	(320.0)
Term Loan Facility	(8.7)	—
Receivables Financing Agreement	(304.2)	(95.0)
Finance leases	(1.9)	(1.1)
Total repayments	(621.8)	(616.1)
Long-term debt borrowings (repayments), net	$ 85.9	$ (201.1)

In 2022, we paid debt issuance costs of $4.4 million, primarily for the refinancing of our senior credit facilities.

In 2023 and 2022, we repurchased and retired 13.3 million and 25.7 million shares, respectively, of common stock with a total value of $711.3 million and $1,350.7 million, respectively.

In 2023 and 2022, we issued 1.0 million and 1.1 million shares, respectively, with a total value of $25.4 million and $25.7 million, respectively, representing stock options exercised.

The percent of total debt to total capitalization increased to 54.1% as of December 31, 2023, from 50.4% as of December 31, 2022, primarily as a result of a higher level of debt outstanding and lower shareholders' equity, primarily due to common stock repurchases partially offset by our operating results.

For the year ended December 31, 2023, we received $44.1 million of cash contributions from noncontrolling interests for BWA.

Dividends per common share were $0.80 in 2023 and 2022. Total dividends paid on common stock amounted to $101.0 million and $116.2 million in 2023 and 2022, respectively. On February 21, 2024, our Board of Directors declared a dividend of $0.20 per share on our common stock, payable on March 15, 2024, to shareholders of record on March 7, 2024.

The payment of cash dividends is subject to the discretion of our Board of Directors and will be determined in light of then-current conditions, including our earnings, our operations, our financial condition, our capital requirements and other factors deemed relevant by our Board of Directors. In the future, our Board of Directors may change our dividend policy, including the frequency or amount of any dividend, in light of then-existing conditions.

Liquidity and Other Financing Arrangements

Our principal sources of liquidity are from cash and cash equivalents, cash flow from operations and borrowings under our Senior Revolving Credit Facility, Receivables Financing Agreement (as defined below) and AR Facilities (as defined below). Additionally, we believe that we have access to the high yield debt and equity markets.

On October 11, 2022, we entered into a $1,550.0 million senior credit facility (Senior Credit Facility) that replaced our 2021 Senior Credit Facility. The Senior Credit Facility includes a senior term loan facility with aggregate commitments of $350.0 million (Term Loan Facility) and a senior revolving credit facility with aggregate commitments of $1,200.0 million (Senior Revolving Credit Facility). The Term Loan Facility was fully drawn on the closing date with the proceeds of the Term Loan Facility used to refinance the loans and commitments outstanding under the 2021 Senior Credit Facility. The Term Loan Facility requires principal amortization payments which began on March 31, 2023, at a rate of 0.625% per quarter through the end of 2024, increasing to 1.250% per quarter thereafter until maturity. The maturity date for the Senior Credit Facility is October 11, 2027.

The Senior Revolving Credit Facility includes a $100.0 million letter of credit subfacility. At December 31, 2023, we had $1,131.6 million available under our $1,200.0 million Senior Revolving Credit Facility because we had $68.0 million borrowed under the facility and issued $0.4 million of letters of credit.

We were in compliance with all covenants and restrictions under all our outstanding credit agreements as of December 31, 2023, and no event of default had occurred that would permit the lenders under our outstanding credit agreements to accelerate the debt if not cured. In the future, our ability to generate sufficient operating cash flows, among other factors, will determine the amounts available to be borrowed under these facilities. As a result of our restrictive covenant related to the net leverage ratio, the maximum additional borrowings available to us could be limited in the future. The limitation, if an amendment or waiver from our lenders is not obtained, could restrict our ability to borrow the maximum amounts available under the Senior Revolving Credit Facility and the Receivables Financing Agreement. As of December 31, 2023, there were no covenants or other restrictions that limited our ability to borrow.

We believe, based on current and projected levels of cash flow from our operations, together with our cash and cash equivalents on hand and the availability to borrow under our Senior Revolving Credit Facility, Receivables Financing Agreement and AR Facilities, we have sufficient liquidity to meet our short-term and long-term needs to make required payments of interest on our debt, fund our operating needs, working capital, and capital expenditure requirements and comply with the financial ratios in our debt agreements.

On July 28, 2022, our Board of Directors authorized a share repurchase program for the purchase of shares of common stock at an aggregate price of up to $2.0 billion. This program will terminate upon the purchase of $2.0 billion of common stock.

For the years ended December 31, 2023 and 2022, 13.3 million and 25.7 million shares, respectively, of common stock have been repurchased and retired at a total value of $711.3 million and $1,350.7 million, respectively. As of December 31, 2023, a cumulative total of 19.2 million shares were repurchased and retired at a total value of $1,003.0 million and $997.0 million of common stock remained authorized to be repurchased under the 2022 Repurchase Authorization program.

We maintain a $425.0 million Receivables Financing Agreement (Receivables Financing Agreement) that is scheduled to mature on October 14, 2025. Under the Receivables Financing Agreement, our eligible trade receivables are used for collateralized borrowings and continue to be serviced by us. In addition, the Receivables Financing Agreement incorporates the net leverage ratio covenant that is contained in the Senior Credit Facility. As of December 31, 2023 and 2022, we had $328.5 million and $300.0 million drawn under the agreement. As of December 31, 2023, $456.6 million of our trade receivables were pledged as collateral and we had $33.3 million of additional borrowing capacity under the Receivables Financing Agreement, which was limited by our borrowing base.

Olin also has trade accounts receivable factoring arrangements (AR Facilities) and pursuant to the terms of the AR Facilities, certain of our domestic subsidiaries may sell their accounts receivable up to a maximum of $175.5 million and certain of our foreign subsidiaries may sell their accounts receivable up to a maximum of €22.0 million. We will continue to service the outstanding accounts sold. These receivables qualify for sales treatment under ASC 860 "Transfers and Servicing" and, accordingly, the proceeds are included in net cash provided by operating activities in the consolidated statements of cash flows.

The following table summarizes the AR Facilities activity:

	December 31,	
	2023	2022
AR Facilities	($ in millions)	
Beginning balance	$ 111.8	$ 83.3
Gross receivables sold	899.0	1,049.7
Payments received from customers on sold accounts	(947.5)	(1,021.2)
Ending balance	$ 63.3	$ 111.8

The factoring discount paid under the AR Facilities is recorded as interest expense on the consolidated statements of operations. The factoring discount for the years ended December 31, 2023 and 2022 was $4.7 million and $3.1 million, respectively. The agreements are without recourse and therefore no recourse liability has been recorded as of December 31, 2023.

We have registered an undetermined amount of securities with the SEC, so that, from time-to-time, we may issue debt securities, preferred stock and/or common stock and associated warrants in the public market under that registration statement.

Credit Ratings

We receive ratings from three independent credit rating agencies: Fitch Ratings (Fitch), Moody's Investor Service (Moody's) and Standard & Poor's (S&P). The following table summarizes our credit ratings as of January 31, 2024:

Credit Ratings	*Long-term Rating*	*Outlook*
Fitch Ratings	BBB-	Stable
Moody’s Investors Service	Ba1	Stable
Standard & Poor’s	BB+	Positive

On January 12, 2023, Fitch assigned a first-time inaugural rating of BBB- and a stable outlook. On June 30, 2023, Moody's affirmed Olin’s Ba1 rating and stable outlook. On April 4, 2023, S&P affirmed Olin’s BB+ rating and positive outlook.

Contractual Obligations

Our current debt structure is used to fund our business operations. As of December 31, 2023, we had long-term borrowings, including the current installment, of $2,670.1 million, of which $893.7 million was at variable rates. We expect to meet our contractual obligations through our normal sources of liquidity and believe we have the financial resources to satisfy these contractual obligations.

We have several defined benefit pension and defined contribution plans, as described in Note 13 "Pension Plans" and Note 17 "Contributing Employee Ownership Plan" in the notes to consolidated financial statements contained in Item 8. We fund the defined benefit pension plans based on the minimum amounts required by law plus such amounts we deem appropriate. Given the inherent uncertainty as to actual minimum funding requirements for qualified defined benefit pension plans, no amounts are included in this table for any period beyond one year for the domestic qualified defined benefit plan. Based on the current funding requirements, we will not be required to make any cash contributions to the domestic qualified defined benefit pension plan at least through 2024. We also have postretirement healthcare plans that provide health and life insurance benefits to certain retired employees and their beneficiaries, as described in Note 14 "Postretirement Benefits" in the notes to consolidated financial statements contained in Item 8. The defined contribution and other postretirement plans are not pre-funded, and expenses are paid by us as incurred. Our long-term contractual commitments associated with debt, contingent tax liabilities, pension and other postretirement benefits consisted of the following:

Contractual Commitments	Payments Due by Period Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years	Total
	($ in millions)				
Debt obligations[1]	$ 78.8	$ 475.0	$ 865.5	$ 1,267.6	$ 2,686.9
Interest payments under debt obligations[2]	158.3	264.8	174.8	81.5	679.4
Contingent tax liability	34.6	9.3	3.5	2.9	50.3
International qualified pension plan payments[3]	10.8	17.2	20.0	166.6	214.6
Non-qualified pension plan payments	0.6	0.8	0.5	1.8	3.7
Postretirement benefit payments	2.7	5.1	4.7	22.7	35.2
Total	$ 285.8	$ 772.2	$ 1,069.0	$ 1,543.1	$ 3,670.1

(1) Excludes unamortized debt issuance costs and unamortized bond original issue discount of $16.8 million at December 31, 2023. All debt obligations are assumed to be held until maturity.

(2) For the purposes of this table, we have assumed for all periods presented that there are no changes in the interest rates from those in effect at December 31, 2023, which ranged from 5.0% to 9.5%.

(3) These amounts are only estimated payments for our foreign qualified pension plans, assuming a weighted average annual expected rate of return on pension plan assets of 4.4% and a discount rate on pension plan obligations of 3.2%. These estimated payments are subject to significant variation and the actual payments may be more than the amounts estimated. In connection with international qualified defined benefit pension plans we made cash contributions of $1.0 million, $1.3 million and $1.1 million in 2023, 2022 and 2021, respectively, and we anticipate less than $5 million of cash contributions to international qualified defined benefit pension plans in 2024.

Non-cancelable operating leases and purchasing commitments are utilized in our normal course of business for our projected needs. Our operating lease commitments as described in Note 22 "Leases" are primarily for railcars, but also include logistics, manufacturing, storage, real estate, and information technology assets. Virtually none of our lease agreements contain escalation clauses or step rent provisions. We also have supply contracts with various third parties for certain raw materials, including ethylene, electricity, propylene and benzene. These contracts have initial terms ranging from several to 20 years. Our long-term contractual commitments associated with operating leases and purchasing commitments consisted of the following:

Lease and Purchase Commitments	Payments Due by Period Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years	Total
	($ in millions)				
Lease Commitments					
Operating leases	$ 80.9	$ 125.8	$ 81.1	$ 132.6	$ 420.4
Purchase Commitments					
Raw materials / utilities	516.3	864.7	738.4	2,842.5	4,961.9
Capital expenditures	10.6	0.8	—	—	11.4
Other long-term supply contracts	37.5	80.4	—	—	117.9
Total purchase commitments	$ 564.4	$ 945.9	$ 738.4	$ 2,842.5	$ 5,091.2

Other Guarantees

We also have standby letters of credit outstanding of $120.7 million of which $0.4 million have been issued under our Senior Revolving Credit Facility. The letters of credit were used to support certain long-term debt, workers compensation insurance policies, plant closure and post-closure obligations, international payment obligations and international pension funding requirements.

CRITICAL ACCOUNTING ESTIMATES

Our discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, sales and expenses, and related disclosure of contingent assets and liabilities. Significant estimates in our consolidated financial statements include goodwill recoverability, environmental, restructuring and other unusual items, litigation, income tax reserves including deferred tax asset valuation allowances, pension, postretirement and other benefits and allowance for doubtful accounts. We base our estimates on prior experience, current facts and circumstances and other assumptions. Actual results may differ from these estimates.

We believe the following critical accounting estimates are the more significant judgments used in the preparation of the consolidated financial statements.

Goodwill

Goodwill is not amortized, but is reviewed for impairment annually in the fourth quarter and/or when circumstances or other events indicate that impairment may have occurred. ASC 350 "Intangibles—Goodwill and Other" permits entities to make a qualitative assessment of whether it is more likely than not that a reporting unit's fair value is less than its carrying amount before applying a quantitative goodwill impairment test. Circumstances that are considered as part of the qualitative assessment and could trigger a quantitative impairment test include, but are not limited to: a significant adverse change in the business climate; a significant adverse legal judgment; adverse cash flow trends; an adverse action or assessment by a government agency; unanticipated competition; sustained decline in our stock price; and a significant restructuring charge within a reporting unit. We define reporting units at the business segment level or one level below the business segment level. For purposes of testing goodwill for impairment, goodwill has been allocated to our reporting units to the extent it relates to each reporting unit.

It is our practice, at a minimum, to perform a quantitative goodwill impairment test in the fourth quarter every three years. In the fourth quarter of 2023, we performed our triennial quantitative goodwill impairment test for our reporting units. We use a discounted cash flow approach to develop the estimated fair value of a reporting unit when a quantitative review is performed. Management judgment is required in developing the assumptions for the discounted cash flow model. We also corroborate our discounted cash flow analysis by evaluating a market-based approach that considers earnings before interest, taxes, depreciation and amortization (EBITDA) multiples from a representative sample of comparable public companies. As a further indicator that each reporting unit has been valued appropriately using a discounted cash flow model, the aggregate fair value of all reporting units is reconciled to the total market value of Olin. An impairment would be recorded if the carrying amount of a reporting unit exceeded the estimated fair value. Based on the aforementioned analysis, the estimated fair value of our reporting units exceeded the carrying value of the reporting units.

Fair value determinations require considerable judgment and are sensitive to changes in underlying assumptions, estimates and market factors. The discount rate, profitability assumptions and terminal growth rate of our reporting units and the supply and demand fundamentals of the chlor alkali industry are material assumptions utilized in the discounted cash flow model used to estimate the fair value of each reporting unit. The discount rate reflects a weighted-average cost of capital, which is calculated, in part based on observable market data. Some of this data (such as the risk free or treasury rate and the pretax cost of debt) are based on the market data at a point in time. Other data (such as the equity risk premium) are based upon market data over time for a peer group of companies in the chemical manufacturing or distribution industries with a market capitalization premium added, as applicable. Also factoring into the discount rate is a market participant's perceived risk (such as the company specific risk premium) in the valuation implied by the sustained reduction in our stock price.

The discounted cash flow analysis requires estimates, assumptions and judgments about future events. Our analysis uses our internally generated long-range plan. Specifically, the assumptions in our long-range plan about terminal growth rates, forecasted capital expenditures and changes in future working capital requirements are used to determine the estimated fair value of each reporting unit. The long-range plan reflects management judgment, supplemented by independent chemical industry analyses which provide multi-year chlor alkali industry operating and pricing forecasts.

As a further indicator that each reporting unit has been valued appropriately using a discounted cash flow model, the aggregate fair value of all reporting units is reconciled to the total market value of Olin. We believe the assumptions used in our goodwill impairment analysis are appropriate and result in reasonable estimates of the implied fair value of each reporting unit. However, given the economic environment and the uncertainties regarding the impact on our business, there can be no assurance that our estimates and assumptions, made for purposes of our goodwill impairment testing, will prove to be an accurate prediction of the future.

Environmental

Accruals (charges to income) for environmental matters are recorded when it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated, based on current law and existing technologies. These amounts, which are not discounted and are exclusive of claims against third parties, are adjusted periodically as assessments and remediation efforts progress or additional technical or legal information becomes available. Environmental costs are capitalized if the costs increase the value of the property and/or mitigate or prevent contamination from future operations. Environmental costs and recoveries are included in costs of goods sold.

Environmental exposures are difficult to assess for numerous reasons, including the identification of new sites, developments at sites resulting from investigatory studies, advances in technology, changes in environmental laws and regulations and their application, changes in regulatory authorities, the scarcity of reliable data pertaining to identified sites, the difficulty in assessing the involvement and financial capability of other potentially responsible parties (PRPs) and our ability to obtain contributions from other parties and the lengthy time periods over which site remediation occurs. It is possible that some of these matters (the outcomes of which are subject to various uncertainties) may be resolved unfavorably to us, which could materially adversely affect our financial position, cash flows or results of operations.

NEW ACCOUNTING PRONOUNCEMENTS

Discussion of new accounting pronouncements can be referred to under Item 8, within Note 3, "Recent Accounting Pronouncements."

DERIVATIVE FINANCIAL INSTRUMENTS

We are exposed to market risk in the normal course of our business operations due to our purchases of certain commodities, our ongoing investing and financing activities and our operations that use foreign currencies. The risk of loss can be assessed from the perspective of adverse changes in fair values, cash flows and future earnings. We have established policies and procedures governing our management of market risks and the use of financial instruments to manage exposure to such risks. ASC 815 "Derivatives and Hedging" (ASC 815) requires an entity to recognize all derivatives as either assets or liabilities in the consolidated balance sheets and measure those instruments at fair value. In accordance with ASC 815, we designate derivative contracts as cash flow hedges of forecasted purchases of commodities and forecasted interest payments related to variable-rate borrowings and designate certain interest rate swaps as fair value hedges of fixed-rate borrowings. We do not enter into any derivative instruments for trading or speculative purposes.

Energy costs, including electricity and natural gas, and certain raw materials used in our production processes are subject to price volatility. Depending on market conditions, we may enter into futures contracts, forward contracts, commodity swaps and put and call option contracts in order to reduce the impact of commodity price fluctuations. The majority of our commodity derivatives expire within one year.

For derivative instruments that are designated and qualify as a cash flow hedge, the change in fair value of the derivative is recognized as a component of other comprehensive income (loss) until the hedged item is recognized in earnings.

We use cash flow hedges for certain raw material and energy costs such as copper, zinc, lead, ethane, electricity and natural gas to provide a measure of stability in managing our exposure to price fluctuations associated with forecasted purchases of raw materials and energy used in our manufacturing process. Settlements on commodity derivative contracts resulted in (losses) gains of $(72.5) million, $58.2 million, and $180.1 million in 2023, 2022, and 2021, respectively, which were included in cost of goods sold. At December 31, 2023, we had open derivative notional contract positions through 2028 totaling $191.0 million. If all open futures contracts had been settled on December 31, 2023, we would have recognized a pretax loss of $24.6 million.

If commodity prices were to remain at December 31, 2023 levels, approximately $20.8 million of deferred losses, net of tax, would be reclassified into earnings during the next twelve months. The actual effect on earnings will be dependent on actual commodity prices when the forecasted transactions occur.

We use interest rate swaps as a means of minimizing cash flow fluctuations that may arise from volatility in interest rates of our variable-rate borrowings. We also use interest rate swaps as a means of managing interest expense and floating interest rate exposure to optimal levels. For derivative instruments that are designated and qualify as a fair value hedge, the gain or loss on the derivative as well as the offsetting loss or gain on the hedged item attributable to the hedged risk are recognized in current earnings. We include the gain or loss on the hedged items (fixed-rate borrowings) in the same line item, interest expense, as the offsetting loss or gain on the related interest rate swaps. There were no outstanding interest rate swaps at December 31, 2023 and 2022.

We actively manage currency exposures that are associated with net monetary asset positions, currency purchases and sales commitments denominated in foreign currencies and foreign currency denominated assets and liabilities created in the normal course of business. We enter into forward sales and purchase contracts to manage currency risk to offset our net exposures, by currency, related to the foreign currency denominated monetary assets and liabilities of our operations. All of the currency derivatives expire within one year and are for USD equivalents. The counterparties to the forward contracts are large financial institutions; however, the risk of loss to us in the event of nonperformance by a counterparty could impact our financial position or results of operations. We had the following notional amounts of outstanding forward contracts to buy and sell foreign currency:

	December 31,	
	2023	2022
Foreign Currency	($ in millions)	
Buy	21.0	275.8
Sell	140.2	110.7

Our foreign currency forward contracts and certain commodity derivatives did not meet the criteria to qualify for hedge accounting. The effect on operating results of items not qualifying for hedge accounting was a loss of $15.7 million, $27.3 million and $22.0 million in 2023, 2022 and 2021, respectively.

The fair value of our derivative asset and liability balances were:

	December 31,			
	2023		2022	
Derivative Assets and Liabilities	($ in millions)			
Other current assets	$	2.1	$	1.8
Other assets		3.2		4.0
Total derivative asset	$	5.3	$	5.8
Accrued liabilities	$	31.9	$	42.5
Other liabilities		0.5		7.4
Total derivative liability	$	32.4	$	49.9

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risk in the normal course of our business operations due to our purchases of certain commodities, our ongoing investing and financing activities and our operations that use foreign currencies. The risk of loss can be assessed from the perspective of adverse changes in fair values, cash flows and future earnings. We have established policies and procedures governing our management of market risks and the use of financial instruments to manage exposure to such risks.

Energy costs, including electricity and natural gas, and certain raw materials used in our production processes are subject to price volatility. Depending on market conditions, we may enter into futures contracts, forward contracts, commodity swaps and put and call option contracts in order to reduce the impact of commodity price fluctuations. As of December 31, 2023, we maintained open positions on commodity contracts with a notional value totaling $191.0 million ($261.2 million at December 31, 2022). Assuming a hypothetical 10% increase in commodity prices, which are currently hedged, as of December 31, 2023, we would experience a $19.1 million ($26.1 million at December 31, 2022) increase in our cost of inventory purchased, which would be substantially offset by a corresponding increase in the value of related hedging instruments.

We transact business in various foreign currencies other than the USD which exposes us to movements in exchange rates which may impact revenue and expenses, assets and liabilities and cash flows. Our significant foreign currency exposure is denominated with European currencies, primarily the Euro, although exposures also exist in other currencies of Asia Pacific, Latin America, Middle East and Africa. For all derivative positions, we evaluated the effects of a 10% shift in exchange rates between those currencies and the USD, holding all other assumptions constant. Unfavorable currency movements of 10% would negatively affect the fair values of the derivatives held to hedge currency exposures by $16.1 million ($38.6 million at December 31, 2022). These unfavorable changes would generally have been offset by favorable changes in the values of the underlying exposures.

We are exposed to changes in interest rates primarily as a result of our investing and financing activities. Our current debt structure is used to fund business operations, and commitments from banks under our Senior Revolving Credit Facility, Receivables Financing Agreement and AR Facilities are sources of liquidity. As of December 31, 2023, we had long-term borrowings, including current installments of long-term debt and finance lease obligations, of $2,670.1 million ($2,580.7 million at December 31, 2022) of which $893.7 million ($805.9 million at December 31, 2022) was issued at variable rates. Included within long-term borrowings on the consolidated balance sheets were deferred debt issuance costs and unamortized bond original issue discount.

Assuming no changes in the $893.7 million of variable-rate debt levels from December 31, 2023, we estimate that a hypothetical change of 100-basis points in the secured overnight financing rate (SOFR) from 2023 would impact annual interest expense by $8.9 million.

If the actual changes in commodities, foreign currency or interest pricing is substantially different than expected, the net impact of commodity risk, foreign currency risk or interest rate risk on our cash flow may be materially different than that disclosed above.

We do not enter into any derivative financial instruments for speculative purposes.

CAUTIONARY STATEMENT ABOUT FORWARD-LOOKING STATEMENTS

This report includes forward-looking statements. These statements relate to analyses and other information that are based on management’s beliefs, certain assumptions made by management, forecasts of future results and current expectations, estimates and projections about the markets and economy in which we and our various segments operate. The statements contained in this report that are not statements of historical fact may include forward-looking statements that involve a number of risks and uncertainties.

We have used the words "anticipate,” "intend,” "may,” "expect,” "believe,” "should,” "plan,” "outlook,” "project,” "estimate,” "forecast,” "optimistic,” "target,” and variations of such words and similar expressions in this annual report to identify such forward-looking statements. These forward-looking statements include, but are not limited to, statements regarding the Company’s intent to repurchase, from time to time, the Company’s common stock. These statements are not guarantees of future performance and involve certain risks, uncertainties, and assumptions, which are difficult to predict and many of which are beyond our control. Therefore, actual outcomes and results may differ materially from those matters expressed or implied in such forward-looking statements. We undertake no obligation to update publicly any forward-looking statements, whether as a result of future events, new information or otherwise. The payment of cash dividends is subject to the discretion of our Board of Directors and will be determined in light of then-current conditions, including our earnings, our operations, our financial conditions, our capital requirements and other factors deemed relevant by our Board of Directors. In the future, our Board of Directors may change our dividend policy, including the frequency or amount of any dividend, in light of then-existing conditions.

The risks, uncertainties and assumptions involved in our forward-looking statements include those discussed under Item 1A—"Risk Factors.” You should consider all of our forward-looking statements in light of these factors. In addition, other risks and uncertainties not presently known to us or that we consider immaterial could affect the accuracy of our forward-looking statements.

Item 8. CONSOLIDATED FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

MANAGEMENT REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The management of Olin Corporation is responsible for establishing and maintaining adequate internal control over financial reporting. Olin's internal control system was designed to provide reasonable assurance to the company's management and Board of Directors regarding the preparation and fair presentation of published financial statements.

All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation, and may not prevent or detect all misstatements.

The management of Olin Corporation has assessed the effectiveness of the company's internal control over financial reporting as of December 31, 2023. In making this assessment, we used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control - Integrated Framework (2013)* to guide our analysis and assessment. Based on our assessment as of December 31, 2023, the company's internal control over financial reporting was effective based on those criteria.

Our independent registered public accountants, KPMG LLP, have audited and issued a report on our internal control over financial reporting, which appears in this Form 10-K.

/s/ Scott Sutton
Scott Sutton
President and Chief Executive Officer

/s/ Todd A. Slater
Todd A. Slater
Senior Vice President and Chief Financial Officer

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors
Olin Corporation:

Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting

We have audited the accompanying consolidated balance sheets of Olin Corporation and subsidiaries (the Company) as of December 31, 2023 and 2022, the related consolidated statements of operations, comprehensive income, shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2023, and the related notes (collectively, the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2023, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023 based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Evaluation of Environmental Obligations

As discussed in Notes 2 and 21 to the consolidated financial statements, the Company has recorded liabilities for future environmental expenditures of $153.6 million as of December 31, 2023. The Company accrues a liability for environmental matters when it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated based upon current law and existing technologies. The liability is adjusted periodically as assessment and remediation efforts progress or as additional technical or legal information becomes available.

We identified the evaluation of environmental liabilities as a critical audit matter. This required challenging auditor judgment due to the nature of the estimate and assumptions, including judgments in determining required remediation activities designed to consider future events and uncertainties and the time period over which remediation activities will occur.

The following are the primary procedures that we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls over the Company's process to estimate environmental obligations, including controls related to the monitoring of the liability as compared to remedial activities required by regulatory authorities. We involved an environmental professional with specialized skills and knowledge who assisted in evaluating the Company's planned remediation activities for certain sites, the time period over which remediation will occur, and changes in the liability and assumptions from those used in the prior period, including comparing the Company's planned remediation activities to those communicated to regulatory authorities and to those commonly observed in conducting remediation.

/s/ KPMG LLP

We have served as the Company's auditor since 1954.

St. Louis, Missouri

February 22, 2024

OLIN CORPORATION AND CONSOLIDATED SUBSIDIARIES
Consolidated Balance Sheets
(In millions, except per share data)

	December 31, 2023	December 31, 2022
Assets		
Current assets:		
Cash and cash equivalents	$ 170.3	$ 194.0
Receivables, net	874.7	924.6
Income taxes receivable	15.3	43.2
Inventories, net	858.8	941.9
Other current assets	54.1	52.7
Total current assets	1,973.2	2,156.4
Property, plant and equipment, net	2,519.6	2,674.1
Operating lease assets, net	344.7	356.0
Deferred income taxes	87.4	60.5
Other assets	1,118.5	1,102.5
Intangible assets, net	245.8	273.8
Goodwill	1,424.0	1,420.9
Total assets	$ 7,713.2	$ 8,044.2
Liabilities and Shareholders' Equity		
Current liabilities:		
Current installments of long-term debt	$ 78.8	$ 9.7
Accounts payable	775.4	837.7
Income taxes payable	154.7	133.4
Current operating lease liabilities	69.3	71.8
Accrued liabilities	450.0	508.8
Total current liabilities	1,528.2	1,561.4
Long-term debt	2,591.3	2,571.0
Operating lease liabilities	283.1	292.5
Accrued pension liability	225.8	234.5
Deferred income taxes	476.2	507.3
Other liabilities	340.3	333.9
Total liabilities	5,444.9	5,500.6
Commitments and contingencies		
Shareholders' equity:		
Common stock, $1.00 par value per share:		
Authorized, 240.0 shares; issued and outstanding, 120.2 and 132.3 shares	120.2	132.3
Additional paid-in capital	24.8	682.7
Accumulated other comprehensive loss	(496.3)	(495.9)
Retained earnings	2,583.7	2,224.5
Olin Corporation's shareholders' equity	2,232.4	2,543.6
Noncontrolling interests	35.9	—
Total equity	2,268.3	2,543.6
Total liabilities and equity	$ 7,713.2	$ 8,044.2

The accompanying notes to consolidated financial statements are an integral part of the consolidated financial statements.

OLIN CORPORATION AND CONSOLIDATED SUBSIDIARIES
Consolidated Statements of Operations
(In millions, except per share data)

	Year Ended December 31,		
	2023	2022	2021
Sales	$ 6,833.0	$ 9,376.2	$ 8,910.6
Operating expenses:			
Cost of goods sold	5,667.5	7,194.3	6,616.4
Selling and administrative	406.7	393.9	416.9
Restructuring charges	89.6	25.3	27.9
Other operating income	42.9	16.3	1.4
Operating income	712.1	1,779.0	1,850.8
Interest expense	181.1	143.9	348.0
Interest income	4.3	2.2	0.2
Non-operating pension income	24.0	38.7	35.7
Income before taxes	559.3	1,676.0	1,538.7
Income tax provision	107.3	349.1	242.0
Net income	452.0	1,326.9	1,296.7
Net loss attributable to noncontrolling interests	(8.2)	—	—
Net income attributable to Olin Corporation	$ 460.2	$ 1,326.9	$ 1,296.7
Net income attributable to Olin Corporation per common share:			
Basic	$ 3.66	$ 9.16	$ 8.15
Diluted	$ 3.57	$ 8.94	$ 7.96
Average common shares outstanding:			
Basic	125.9	144.9	159.1
Diluted	128.8	148.5	163.0

The accompanying notes to consolidated financial statements are an integral part of the consolidated financial statements.

OLIN CORPORATION AND CONSOLIDATED SUBSIDIARIES
Consolidated Statements of Comprehensive Income
(In millions)

	Year Ended December 31,		
	2023	**2022**	**2021**
Net income	$ 452.0	$ 1,326.9	$ 1,296.7
Other comprehensive (loss) income, net of tax:			
Foreign currency translation	(1.1)	(27.7)	(30.3)
Cash flow hedges	14.1	(55.3)	1.4
Pension and postretirement benefits	(13.4)	75.1	230.8
Total other comprehensive (loss) income, net of tax	(0.4)	(7.9)	201.9
Comprehensive income	451.6	1,319.0	1,498.6
Comprehensive loss attributable to noncontrolling interests	(8.2)	—	—
Comprehensive income attributable to Olin Corporation	$ 459.8	$ 1,319.0	$ 1,498.6

The accompanying notes to consolidated financial statements are an integral part of the consolidated financial statements.

OLIN CORPORATION AND CONSOLIDATED SUBSIDIARIES
Consolidated Statements of Shareholders' Equity
(In millions, except per share data)

	Year Ended December 31,		
	2023	2022	2021
Common Stock			
Balance at beginning of year	$ 132.3	$ 156.8	$ 158.0
Common stock repurchased and retired	(13.3)	(25.7)	(4.7)
Common stock issued for:			
Stock options exercised	1.0	1.1	3.4
Other transactions	0.2	0.1	0.1
Balance at end of year	120.2	132.3	156.8
Additional Paid-In Capital			
Balance at beginning of year	682.7	1,969.6	2,137.8
Common stock repurchased and retired	(698.0)	(1,325.0)	(247.2)
Common stock issued for:			
Stock options exercised	24.4	24.6	69.0
Other transactions	1.6	3.0	3.3
Stock-based compensation	14.1	10.5	6.7
Balance at end of year	24.8	682.7	1,969.6
Accumulated Other Comprehensive Loss			
Balance at beginning of year	(495.9)	(488.0)	(689.9)
Other comprehensive (loss) income	(0.4)	(7.9)	201.9
Balance at end of year	(496.3)	(495.9)	(488.0)
Retained Earnings			
Balance at beginning of year	2,224.5	1,013.8	(155.1)
Net income	460.2	1,326.9	1,296.7
Common stock dividends paid	(101.0)	(116.2)	(127.8)
Balance at end of year	2,583.7	2,224.5	1,013.8
Olin Corporation's Shareholders' Equity	2,232.4	2,543.6	2,652.2
Noncontrolling Interests			
Balance at beginning of year	—	—	—
Net loss	(8.2)	—	—
Contributions from noncontrolling interests	44.1	—	—
Balance at end of year	35.9	—	—
Total Equity	$ 2,268.3	$ 2,543.6	$ 2,652.2
Dividends declared per share of common stock	$ 0.80	$ 0.80	$ 0.80

The accompanying notes to consolidated financial statements are an integral part of the consolidated financial statements.

OLIN CORPORATION AND CONSOLIDATED SUBSIDIARIES
Consolidated Statements of Cash Flows
(In millions)

	Years Ended December 31,		
	2023	*2022*	*2021*
Operating Activities			
Net income	$ 452.0	$ 1,326.9	$ 1,296.7
Adjustments to reconcile net income to net cash and cash equivalents provided by (used for) operating activities:			
Depreciation and amortization	533.4	598.8	582.5
Gains on disposition of property, plant and equipment	(27.0)	(13.0)	(1.4)
Stock-based compensation	18.6	14.1	8.3
Loss on debt extinguishment	—	—	152.2
Write-off of equipment and facility included in restructuring charges	17.7	—	—
Deferred income taxes	(55.6)	(32.4)	(42.7)
Qualified pension plan contributions	(1.1)	(1.3)	(1.1)
Qualified pension plan income	(21.0)	(33.1)	(27.8)
Change in assets and liabilities:			
Receivables	65.4	160.8	(360.0)
Income taxes receivable/payable	45.8	(2.9)	105.1
Inventories	94.4	(86.3)	(206.0)
Other current assets	(3.1)	15.9	(22.3)
Accounts payable and accrued liabilities	(133.9)	(22.3)	240.1
Other assets	(23.4)	(2.6)	(13.3)
Other noncurrent liabilities	15.8	(0.7)	26.2
Other operating activities	(3.7)	—	4.5
Net operating activities	974.3	1,921.9	1,741.0
Investing Activities			
Capital expenditures	(236.0)	(236.9)	(200.6)
Business acquired in purchase transaction, net of cash acquired	(63.9)	—	—
Payments under other long-term supply contracts	(64.5)	(37.7)	—
Proceeds from disposition of property, plant and equipment	28.8	14.9	3.2
Other investing activities	(5.2)	—	—
Net investing activities	(340.8)	(259.7)	(197.4)
Financing Activities			
Long-term debt:			
Borrowings	707.7	415.0	540.0
Repayments	(621.8)	(616.1)	(1,643.1)
Debt early redemption premiums	—	—	(137.7)
Common stock repurchased and retired	(711.3)	(1,350.7)	(251.9)
Stock options exercised	25.4	25.7	72.4
Dividends paid	(101.0)	(116.2)	(127.8)
Debt issuance costs	—	(4.4)	(3.9)
Contributions received from noncontrolling interests	44.1	—	—
Net financing activities	(656.9)	(1,646.7)	(1,552.0)
Effect of exchange rate changes on cash and cash equivalents	(0.3)	(2.0)	(0.8)
Net (decrease) increase in cash and cash equivalents	(23.7)	13.5	(9.2)
Cash and cash equivalents, beginning of year	194.0	180.5	189.7
Cash and cash equivalents, end of year	$ 170.3	$ 194.0	$ 180.5
Cash paid for interest and income taxes:			
Interest, net	$ 176.8	$ 141.7	$ 345.2
Income taxes, net of refunds	111.7	356.6	169.6

The accompanying notes to consolidated financial statements are an integral part of the consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1. DESCRIPTION OF BUSINESS

Olin Corporation (Olin) is a Virginia corporation, incorporated in 1892, having its principal executive offices in Clayton, MO. We are a leading vertically integrated global manufacturer and distributor of chemical products and a leading U.S. manufacturer of ammunition. Our operations are concentrated in three business segments: Chlor Alkali Products and Vinyls, Epoxy and Winchester. All of our business segments are capital-intensive manufacturing businesses. The Chlor Alkali Products and Vinyls segment manufactures and sells chlorine and caustic soda, ethylene dichloride and vinyl chloride monomer, methyl chloride, methylene chloride, chloroform, carbon tetrachloride, perchloroethylene, hydrochloric acid, hydrogen, bleach products and potassium hydroxide. The Epoxy segment produces and sells a full range of epoxy materials and precursors, including aromatics (acetone and phenol), allyl chloride, epichlorohydrin, liquid epoxy resins, solid epoxy resins and systems and growth products such as converted epoxy resins and additives. The Winchester segment produces and sells sporting ammunition, reloading components, small caliber military ammunition and components, industrial cartridges, and clay targets.

On January 10, 2023, Blue Water Alliance (BWA), our joint venture with Mitsui & Co., Ltd. (Mitsui), began operations. BWA is an independent global trader of ECU-based derivatives, focused on globally traded caustic soda and ethylene dichloride. Olin holds 51% interest and exercises control in BWA, and the joint venture is consolidated in our financial statements in our Chlor Alkali Products and Vinyls segment, with Mitsui's 49% interest in BWA classified as noncontrolling interest. All intercompany accounts and transactions are eliminated in consolidation.

NOTE 2. ACCOUNTING POLICIES

The preparation of the consolidated financial statements requires estimates and assumptions that affect amounts reported and disclosed in the financial statements and related notes. Actual results could differ from those estimates.

Basis of Presentation

The consolidated financial statements include the accounts of Olin and all majority-owned subsidiaries. Investments in our affiliates are accounted for using the equity method. Accordingly, we include only our share of earnings or losses of these affiliates in consolidated net income (loss).

Revenue Recognition

We derive our revenues primarily from the manufacturing and delivery of goods to customers. Revenues are recognized on sales of goods at the time when control of those goods is transferred to our customers at an amount that reflects the consideration to which we expect to be entitled in exchange for those goods. We primarily sell our goods directly to customers, and to a lesser extent, through distributors. Payment terms are typically 30 to 90 days from date of invoice. Our contracts do not typically have a significant financing component. Right to payment is determined at the point in time in which control has transferred to the customer.

A performance obligation is a promise in a contract to transfer a distinct good to the customer. At contract inception, we assess the goods promised in our contracts with customers and identify a performance obligation for each promise to transfer to the customer a good (or bundle of goods) that is distinct. A contract's transaction price is based on the price stated in the contract and allocated to each distinct performance obligation and revenue is recognized when the performance obligation is satisfied. Substantially all of our contracts have a single distinct performance obligation or multiple performance obligations which are distinct and represent individual promises within the contract. Substantially all of our performance obligations are satisfied at a single point in time, when control is transferred, which is generally upon shipment or delivery as stated in the contract terms. In some instances, primarily related to governmental contracts within our Winchester business, we recognize revenue over-time as control of the promised goods or services is being transferred to the customer using the cost-to-cost method of accounting. We believe this is an appropriate measure of progress toward satisfaction of performance obligations as this measure most accurately depicts the progress of our work and transfer of control to our customers. For the years ended December 31, 2023, 2022 and 2021, revenue recognized over time represented $104.8 million, $57.8 million and $22.8 million, respectively.

All taxes assessed by governmental authorities that are both imposed on and concurrent with our revenue-producing transactions and collected from our customers are excluded from the measurement of the transaction price. Shipping and handling fees billed to customers are included in revenue and are considered activities to fulfill the promise to transfer the good. Allowances for estimated returns, discounts and rebates are considered variable consideration, which may be constrained, and are estimated and recognized when sales are recorded. The estimates are based on various market data, historical trends and information from customers. Actual returns, discounts and rebates have not been materially different from estimates. For all contracts that have a duration of one year or less at contract inception, we do not adjust the promised amount of consideration for the effects of a significant financing component.

Substantially all of our revenue is derived from contracts with an original expected length of time of one year or less and for which we recognize revenue for the amount in which we have the right to invoice at the point in time in which control has transferred to the customer. However, a portion of our revenue is derived from long-term contracts which have contract periods that vary between one to multi-year. Certain of these contracts represent contracts with minimum purchase obligations, which can be substantially different than the actual revenue recognized. Such contracts consist of varying types of products across our chemical businesses. Certain contracts include variable volumes and/or variable pricing with pricing provisions tied to commodity, consumer price or other indices. The transaction price allocated to the remaining performance obligations related to our contracts was excluded from the disclosure of our remaining performance obligations based on the following practical expedients that we elected to apply: (i) contracts with index-based pricing or variable volume attributes in which such variable consideration is allocated entirely to a wholly unsatisfied performance obligation; and (ii) contracts with an original expected duration of one year or less.

The timing of our customer billings does not always match the timing of our revenue recognition. When the Company is entitled to bill a customer in advance of the recognition of revenue, a contract liability is recognized. When the Company is not entitled to bill a customer until a period after the related recognition of revenue, a contract asset is recognized. Contract liabilities were $34.8 million and $43.4 million as of December 31, 2023 and 2022, respectively, and are included as a component of accrued liabilities and other liabilities in our consolidated balance sheets. Contract assets were $20.1 million and $16.2 million as of December 31, 2023 and 2022, respectively, and are included as a component of other current assets and other assets in our consolidated balance sheets. Substantially all our contract liabilities, net of contract assets, are expected to be realized within one year, when the related performance obligations are satisfied.

Cost of Goods Sold and Selling and Administrative Expenses

Cost of goods sold includes the costs of inventory sold, related purchasing, distribution and warehousing costs, costs incurred for shipping and handling, depreciation and amortization expense related to these activities and environmental remediation costs and recoveries. Selling and administrative expenses include personnel costs associated with sales, marketing and administrative, research and development, legal and legal-related costs, consulting and professional services fees, advertising expenses, depreciation expense related to these activities, foreign currency translation and other similar costs.

Acquisition-related Costs

Acquisition-related costs include advisory, legal, accounting and other professional fees incurred in connection with the purchase and integration of our acquisitions. Acquisition-related costs also may include costs which arise as a result of acquisitions, including contractual change in control provisions, contract termination costs, compensation payments related to the acquisition or pension and other postretirement benefit plan settlements.

Other Operating Income (Expense)

Other operating income (expense) consists of miscellaneous operating income items, which are related to our business activities, and gains (losses) on disposition of property, plant and equipment. Other operating income for the year ended December 31, 2023, included a gain of $27.0 million from the sale of our domestic private trucking fleet and operations and a gain of $15.6 million for insurance recoveries associated with a second quarter 2022 business interruption at our Plaquemine, LA, Chlor Alkali Products and Vinyls facility. Other operating income for the year ended December 31, 2022, included $13.0 million of gains from the sale of two former manufacturing facilities. Other operating income for the year ended December 31, 2021, included a $1.4 million gain from the sale of a terminal facility.

Other Income (Expense)

Other income (expense) consists of non-operating income and expense items which are not related to our primary business activities.

Foreign Currency Translation

Our worldwide operations utilize the U.S. dollar (USD) or local currency as the functional currency, where applicable. For foreign entities where the USD is the functional currency, gains and losses resulting from balance sheet remeasurement are included in selling and administrative. For foreign entities where the local currency is the functional currency, assets and liabilities denominated in local currencies are translated into USD at end-of-period exchange rates and the resultant translation adjustments are included in accumulated other comprehensive loss. Assets and liabilities denominated in other than the local currency are remeasured into the local currency prior to translation into USD and the resultant exchange gains or losses are included in income in the period in which they occur. Income and expenses are translated into USD using an approximation of the average rate prevailing during the period. We change the functional currency of our separate and distinct foreign entities only when significant changes in economic facts and circumstances indicate clearly that the functional currency has changed.

Cash and Cash Equivalents

All highly liquid investments, with a maturity of three months or less at the date of purchase, are considered cash equivalents.

Short-Term Investments

We classify our marketable securities as available-for-sale, which are reported at fair market value with unrealized gains and losses included in accumulated other comprehensive loss, net of applicable taxes. The fair value of marketable securities is determined by quoted market prices. Realized gains and losses on sales of investments, as determined on the specific identification method, and declines in value of securities judged to be other-than-temporary are included in other income (expense) in the consolidated statements of operations. Interest and dividends on all securities are included in interest income and other income (expense), respectively. As of December 31, 2023 and 2022, no short-term investments were recorded on our consolidated balance sheets.

Allowance for Doubtful Accounts Receivable

We evaluate the collectibility of financial instruments based on our current estimate of credit losses expected to be incurred over the life of the financial instrument. The only significant financial instrument which creates exposure to credit losses are customer accounts receivables. We measure credit losses on uncollected accounts receivable through an allowance for doubtful accounts receivable which is based on a combination of factors including both historical collection experience and reasonable estimates that affect the expected collectibility of the receivable. These factors include historical bad debt experience, industry conditions of the customer or group of customers, geographical region, credit ratings and general market conditions. We group receivables together for purposes of estimating credit losses when customers have similar risk characteristics; otherwise, the estimation is performed on the individual receivable.

This estimate is periodically adjusted when we become aware of a specific customer's inability to meet its financial obligations (e.g., bankruptcy filing) or as a result of changes in the overall aging of accounts receivable. While we have a large number of customers that operate in diverse businesses and are geographically dispersed, a general economic downturn in any of the industry segments in which we operate could result in higher-than-expected defaults, and, therefore, the need to revise estimates for the provision for doubtful accounts could occur.

Inventories

Inventories are valued at the lower of cost and net realizable value. For U.S. inventories, inventory costs are determined principally by the last-in, first-out (LIFO) method of inventory accounting while for international inventories, inventory costs are determined principally by the first-in, first-out (FIFO) method of inventory accounting. Costs for other inventories have been determined principally by the average-cost method (primarily operating supplies, spare parts and maintenance parts). Elements of costs in inventories include raw materials, direct labor and manufacturing overhead. See Note 8 "Inventories" for additional information.

Property, Plant and Equipment

Property, plant and equipment are recorded at cost. Depreciation is computed on a straight-line basis over the estimated useful lives of the related assets. Interest costs incurred to finance expenditures for major long-term construction projects are capitalized as part of the historical cost and included in property, plant and equipment and are depreciated over the useful lives of the related assets. Leasehold improvements are amortized over the term of the lease or the estimated useful life of the improvement, whichever is shorter. Start-up costs are expensed as incurred. Expenditures for maintenance and repairs are charged to expense when incurred while the costs of significant improvements, which extend the useful life of the underlying asset, are capitalized.

Property, plant and equipment are reviewed for impairment when conditions indicate that the carrying values of the asset group may not be recoverable. Such impairment conditions include an extended period of idleness or a plan of disposal. If such impairment indicators are present or other factors exist that indicate that the carrying amount of an asset group may not be recoverable, we determine whether impairment has occurred through the use of an undiscounted cash flow analysis at the lowest level for which identifiable cash flows exist. For our Chlor Alkali Products and Vinyls, Epoxy and Winchester segments, the lowest level for which identifiable cash flows exist is the operating facility level or an appropriate grouping of operating facilities level, which represents the asset group. The amount of impairment loss, if any, is measured by the difference between the net book value of the assets and the estimated fair value of the related asset group. See Note 9 "Property, Plant and Equipment" for additional information.

Leases

We determine if an arrangement is a lease at inception of the contract. Operating lease assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease assets and liabilities are recognized at commencement date based on the present value of fixed lease payments over the lease term. Our lease commitments are primarily for railcars, but also include logistics, manufacturing, storage, real estate and information technology assets. Leases with an initial term of 12 months or less are not recorded on the balance sheet; instead, we recognize lease expense for these leases on a straight-line basis over the lease term. We do not account for lease components (e.g., fixed payments to use the underlying lease asset) separately from the non-lease components (e.g., fixed payments for common-area maintenance costs and other items that transfer a good or service). Some of our leases include variable lease payments, which primarily result from changes in consumer price and other market-based indices, which are generally updated annually, and maintenance and usage charges. These variable payments are excluded from the calculation of our lease assets and liabilities.

Most leases include one or more options to renew, with renewal terms that can extend the lease term from one-to-many years. The exercise of lease renewal options is typically at our sole discretion. Certain leases also include options to purchase the leased asset. We do not include options to renew or purchase leased assets in the measurement of lease liabilities unless those options are highly certain of exercise. The depreciable life of assets and leasehold improvements are limited by the expected lease term, unless there is a transfer of title or purchase option reasonably certain of exercise. We have operating leases with terms that require us to guarantee a portion of the residual value of the leased assets upon termination of the lease as well as other guarantees. These residual value guarantees consist primarily of leases for railcars. Residual value guarantee payments that become probable and estimable are accrued as part of the lease liability and recognized over the remaining life of the applicable lease. Our current expectation is that the likelihood of material residual guarantee payments is remote. We utilize the interest rate implicit in the lease to determine the lease liability when the interest rate can be determined. As most of our leases do not provide an implicit rate, we use our incremental borrowing rate based on the information available at the lease commencement date in determining the present value of lease payments. We estimate the incremental borrowing rate based on the geographic region for which we would borrow, on a secured basis of the lease asset, at an amount equal to the lease payments over a similar time period as the lease term. We have no additional restrictions or covenants imposed by our lease contracts. See Note 22 "Leases" for additional information.

Asset Retirement Obligations

We record the fair value of an asset retirement obligation associated with the retirement of a tangible long-lived asset as a liability in the period incurred. The liability is measured at discounted fair value and is adjusted to its present value in subsequent periods as accretion expense is recorded. The corresponding asset retirement costs are capitalized as part of the carrying amount of the related long-lived asset and depreciated over the asset's useful life. Asset retirement obligations are reviewed annually in the fourth quarter and/or when circumstances or other events indicate that changes underlying retirement assumptions may have occurred.

The activities of our asset retirement obligations were as follows:

	December 31,	
	2023	**2022**
Asset Retirement Obligation Activity	*($ in millions)*	
Beginning balance	$ 66.3	$ 70.2
Accretion	3.3	3.8
Spending	(5.0)	(8.7)
Adjustments	8.2	1.0
Ending balance	$ 72.8	$ 66.3

At December 31, 2023 and 2022, our consolidated balance sheets included an asset retirement obligation of $63.3 million and $52.6 million, respectively, which were classified as other noncurrent liabilities.

In 2023 and 2022, we had net adjustments that increased the asset retirement obligation by $8.2 million and $1.0 million, respectively, which were primarily comprised of increases in estimated costs for certain assets.

Comprehensive Income (Loss)

Accumulated other comprehensive loss consists of foreign currency translation adjustments, pension and postretirement liability adjustments, pension and postretirement amortization of prior service costs and actuarial losses and net unrealized gains (losses) on derivative contracts.

Purchase Accounting

In accordance with Accounting Standards Codification (ASC) 805, "Business Combinations," we record the fair value of purchase consideration for the tangible and intangible assets acquired and liabilities assumed based on their estimated fair values on the acquisition date. The excess of purchase price over the aggregate fair value is recorded as goodwill. Intangible assets are valued using the relief from royalty and multi-period excess earnings methodologies, considered Level 3 measurements. Key assumptions in valuing certain intangible assets include, but are not limited to, future expected cash flows from acquired customers, useful lives, royalty rates, and discount rates. Our fair value estimates are based upon assumptions believed to be reasonable, but which are inherently uncertain and unpredictable and, as a result, may differ from actual results. Changes in the estimated fair values of net assets recorded for acquisitions before the finalization of more detailed analysis, but not over one year from the acquisition date, will adjust the purchase price allocatable to goodwill. Any adjustments after the one-year measurement period are recorded in earnings.

Goodwill

Goodwill is not amortized, but is reviewed for impairment annually in the fourth quarter and/or when circumstances or other events indicate that impairment may have occurred. ASC 350 "Intangibles—Goodwill and Other" permits entities to make a qualitative assessment of whether it is more likely than not that a reporting unit's fair value is less than its carrying amount before applying the goodwill impairment test. Circumstances that are considered as part of the qualitative assessment and could trigger a quantitative impairment test include, but are not limited to: a significant adverse change in the business climate; a significant adverse legal judgment; adverse cash flow trends; an adverse action or assessment by a government agency; unanticipated competition; sustained decline in our stock price; and a significant restructuring charge within a reporting unit. We define reporting units at the business segment level or one level below the business segment level. For purposes of testing goodwill for impairment, goodwill has been allocated to our reporting units to the extent it relates to each reporting unit.

It is our practice, at a minimum, to perform a quantitative goodwill impairment test in the fourth quarter every three years. In the fourth quarter of 2023, we performed our triennial quantitative goodwill impairment test for our reporting units. We use a discounted cash flow approach to develop the estimated fair value of a reporting unit when a quantitative test is performed. Management judgment is required in developing the assumptions for the discounted cash flow model. We also corroborate our discounted cash flow analysis by evaluating a market-based approach that considers earnings before interest, taxes, depreciation and amortization (EBITDA) multiples from a representative sample of comparable public companies. As a further indicator that each reporting unit has been valued appropriately using a discounted cash flow model, the aggregate fair value of all reporting units is reconciled to the total market value of Olin. An impairment would be recorded if the carrying amount of a reporting unit exceeded the estimated fair value. Based on the aforementioned analysis, the estimated fair value of our reporting units substantially exceeded the carrying value of the reporting units.

Fair value determinations require considerable judgment and are sensitive to changes in underlying assumptions, estimates and market factors. The discount rate, profitability assumptions and terminal growth rate of our reporting units and the cyclical nature of the chlor alkali industry were the material assumptions utilized in the discounted cash flow model used to estimate the fair value of each reporting unit. The discount rate reflects a weighted-average cost of capital, which is calculated based on observable market data. Some of this data (such as the risk free or treasury rate and the pretax cost of debt) are based on the market data at a point in time. Other data (such as the equity risk premium) are based upon market data over time for a peer group of companies in the chemical manufacturing or distribution industries with a market capitalization premium added, as applicable.

The discounted cash flow analysis requires estimates, assumptions and judgments about future events. Our analysis uses our internally generated long-range plan. Our discounted cash flow analysis uses the assumptions in our long-range plan about terminal growth rates, forecasted capital expenditures and changes in future working capital requirements to determine the implied fair value of each reporting unit. The long-range plan reflects management judgment, supplemented by independent chemical industry analyses which provide multi-year industry operating and pricing forecasts.

We believe the assumptions used in our goodwill impairment analysis are appropriate and result in reasonable estimates of the implied fair value of each reporting unit. However, given the economic environment and the uncertainties regarding the impact on our business, there can be no assurance that our estimates and assumptions, made for purposes of our goodwill impairment testing, will prove to be an accurate prediction of the future. In order to evaluate the sensitivity of the fair value calculation on the goodwill impairment test, we applied a hypothetical 10% decrease to the fair value of each reporting unit. We also applied a hypothetical decrease of 100-basis points in our terminal growth rate or an increase of 100-basis points in our weighted-average cost of capital to test the fair value calculation. In all cases, the estimated fair value of our reporting units derived in these sensitivity calculations exceeded the carrying value in excess of 10%. If our assumptions regarding future performance are not achieved, we may be required to record goodwill impairment charges in future periods. It is not possible at this time to determine if any such future impairment charge would result or, if it does, whether such charge would be material. See Note 11 "Goodwill and Intangible Assets" for additional information.

Intangible Assets

In conjunction with our acquisitions, we have obtained access to the customer contracts and relationships, trade names, acquired technology and other intellectual property of the acquired companies. These relationships are expected to provide economic benefit for future periods. Amortization expense is recognized on a straight-line basis over the estimated lives of the related assets. The amortization period of customer contracts and relationships, trade names, acquired technology and other intellectual property represents our best estimate of the expected usage or consumption of the economic benefits of the acquired assets, which is based on the company’s historical experience.

Intangible assets with finite lives are reviewed for impairment when conditions indicate that the carrying values of the assets may not be recoverable. Circumstances that are considered as part of the qualitative assessment and could trigger a quantitative impairment test include, but are not limited to: a significant adverse change in the business climate; a significant adverse legal judgment including asset specific factors; adverse cash flow trends; an adverse action or assessment by a government agency; unanticipated competition; sustained decline in our stock price; and a significant restructuring charge within a reporting unit. See Note 11 "Goodwill and Intangible Assets” for additional information.

Environmental Liabilities and Expenditures

Accruals (charges to income) for environmental matters are recorded when it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated, based upon current law and existing technologies. These amounts, which are not discounted and are exclusive of claims against third parties, are adjusted periodically as assessment and remediation efforts progress or additional technical or legal information becomes available. Environmental costs are capitalized if the costs increase the value of the property and/or mitigate or prevent contamination from future operations. See Note 21 "Environmental” for additional information.

Income Taxes

Deferred taxes are provided for differences between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. A valuation allowance is provided to offset deferred tax assets if, based on the available evidence, it is more likely than not that some or all of the value of the deferred tax assets will not be realized. See Note 15 "Income Taxes” for additional information.

Derivative Financial Instruments

We are exposed to market risk in the normal course of our business operations due to our purchases of certain commodities, our ongoing investing and financing activities and our operations that use foreign currencies. The risk of loss can be assessed from the perspective of adverse changes in fair values, cash flows and future earnings. We have established policies and procedures governing our management of market risks and the use of financial instruments to manage exposure to such risks. We use hedge accounting treatment for a significant amount of our business transactions whose risks are covered using derivative instruments. The hedge accounting treatment provides for the deferral of gains or losses on derivative instruments until such time as the related transactions occur. See Note 24 "Derivative Financial Instruments” for additional information.

Concentration of Credit Risk

Accounts receivable is the principal financial instrument which subjects us to a concentration of credit risk. Credit is extended based upon the evaluation of a customer’s financial condition and, generally, collateral is not required. Concentrations of credit risk with respect to receivables are somewhat limited due to our large number of customers, the diversity of these customers’ businesses and the geographic dispersion of such customers. Our accounts receivable are predominantly derived from sales denominated in USD or the Euro. We maintain an allowance for doubtful accounts based upon the expected collectibility of all trade receivables.

Fair Value

Fair value is defined as the price at which an asset could be exchanged in a current transaction between knowledgeable, willing parties or the amount that would be paid to transfer a liability to a new obligor, not the amount that would be paid to settle the liability with the creditor. Where available, fair value is based on observable market prices or parameters or derived from such prices or parameters. Where observable prices or inputs are not available, valuation models are applied. These valuation techniques involve some level of management estimation and judgment, the degree of which is dependent on the price transparency for the instruments or market and the instruments’ complexity.

Assets and liabilities recorded at fair value in the consolidated balance sheets are categorized based upon the level of judgment associated with the inputs used to measure their fair value. Hierarchical levels, defined by ASC 820 "Fair Value Measurement" (ASC 820), and directly related to the amount of subjectivity associated with the inputs to fair valuation of these assets and liabilities, are as follows:

Level 1 — Inputs were unadjusted, quoted prices in active markets for identical assets or liabilities at the measurement date.

Level 2 — Inputs (other than quoted prices included in Level 1) were either directly or indirectly observable for the asset or liability through correlation with market data at the measurement date and for the duration of the instrument's anticipated life.

Level 3 — Inputs reflected management's best estimate of what market participants would use in pricing the asset or liability at the measurement date. Consideration was given to the risk inherent in the valuation technique and the risk inherent in the inputs to the model.

The carrying values of cash and cash equivalents, accounts receivable and accounts payable approximated fair values due to the short-term maturities of these instruments. Since our long-term debt instruments may not be actively traded, the inputs used to measure the fair value of our long-term debt are based on current market rates for debt of similar risk and maturities and is classified as Level 2 in the fair value measurement hierarchy. As of December 31, 2023 and 2022, the fair value measurements of debt were $2,626.2 million and $2,517.7 million, respectively.

In addition to assets and liabilities that are recorded at fair value on a recurring basis, we record assets and liabilities at fair value on a nonrecurring basis as required by ASC 820. There were no assets measured at fair value on a nonrecurring basis as of December 31, 2023 and 2022.

Retirement-Related Benefits

We account for our defined benefit pension plans and non-pension postretirement benefit plans using actuarial models required by ASC 715 "Compensation—Retirement Benefits". These models use an attribution approach that generally spreads the financial impact of changes to the plan and actuarial assumptions over the average remaining service lives of the employees in the plan. Changes in liability due to changes in actuarial assumptions such as discount rate, rate of compensation increases and mortality, as well as annual deviations between what was assumed and what was experienced by the plan are treated as actuarial gains or losses. The principle underlying the required attribution approach is that employees render service over their average remaining service lives on a relatively smooth basis and, therefore, the accounting for benefits earned under the pension or non-pension postretirement benefits plans should follow the same relatively smooth pattern. Substantially all domestic defined benefit pension plan participants are no longer accruing benefits; therefore, actuarial gains and losses are amortized based upon the remaining life expectancy of the inactive plan participants. For both the years ended December 31, 2023 and 2022, the average remaining life expectancy of the inactive participants in the domestic defined benefit pension plan were 17 years.

One of the key assumptions for the net periodic pension calculation is the expected long-term rate of return on plan assets, used to determine the "market-related value of assets." The "market-related value of assets" recognizes differences between the plan's actual return and expected return over a five-year period. The required use of an expected long-term rate of return on the market-related value of plan assets may result in recognized pension income that is greater or less than the actual returns of those plan assets in any given year. Over time, however, the expected long-term returns are designed to approximate the actual long-term returns and, therefore, result in a pattern of income and expense recognition that more closely matches the pattern of the services provided by the employees. As differences between actual and expected returns are recognized over five years, they subsequently generate gains and losses that are subject to amortization over the average remaining life expectancy of the inactive plan participants, as described in the preceding paragraph.

We use long-term historical actual return information, the mix of investments that comprise plan assets, and future estimates of long-term investment returns and inflation by reference to external sources to develop the expected long-term rate of return on plan assets as of December 31.

The discount rate assumptions used for pension and non-pension postretirement benefit plan accounting reflect the rates available on high-quality fixed-income debt instruments on December 31 of each year. The rate of compensation increase is based upon our long-term plans for such increases. For retiree medical plan accounting, we review external data and our own historical trends for healthcare costs to determine the healthcare cost trend rates.

For our defined benefit pension and other postretirement benefit plans, we measure service and interest costs by applying the specific spot rates along the yield curve to the plans' estimated cash flows. We believe this approach provides a more precise measurement of service and interest costs by aligning the timing of the plans' liability cash flows to the corresponding spot rates on the yield curve.

Stock-Based Compensation

We measure the cost of employee services received in exchange for an award of equity instruments, such as stock options, performance shares and restricted stock, based on the grant-date fair value of the award. This cost is recognized over the period during which an employee is required to provide service in exchange for the award, the requisite service period (usually the vesting period). An initial measurement is made of the cost of employee services received in exchange for an award of liability instruments based on its current fair value and the value of that award is subsequently remeasured at each reporting date through the settlement date. Changes in fair value of liability awards during the requisite service period are recognized as compensation cost over that period. See Note 18 "Stock-based Compensation" for additional information.

Share Repurchases

Under our share repurchase programs, we may pursue various share repurchase strategies, which include open market transactions or through privately negotiated transactions, including under an accelerated share repurchase (ASR) agreement, or by other means, including through the use of trading plans intended to qualify under Rule 10b5-1 under the Securities Exchange Act of 1934, as amended. Under an ASR agreement, which is typically with a third-party financial institution to repurchase shares of Olin's common stock, Olin pays a specified amount to the financial institution and receives an initial delivery of shares. This initial delivery of shares represents the minimum number of shares that Olin may receive under the agreement. Upon settlement of the ASR agreement, the financial institution delivers additional shares, with the final number of shares delivered determined with reference to the volume weighted-average price of Olin's common stock over the term of the agreement, less an agreed-upon discount. The transactions are accounted for as liability or equity transactions and also as share retirements, similar to our other share repurchase activity, when the shares are received, at which time there is an immediate reduction in the weighted-average common shares calculation for basic and diluted earnings per share.

The Inflation Reduction Act (IRA) was enacted in the United States on August 16, 2022. The IRA imposes a 1% excise tax on the fair market value of stock repurchases made by covered corporations after December 31, 2022. The total taxable value of shares repurchased is reduced by the fair market value of any newly issued shares during the taxable year. As a result, we record a tax liability as a cost associated with our share repurchases.

NOTE 3. RECENT ACCOUNTING PRONOUNCEMENTS

In December 2023, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures*, which includes amendments that further enhance income tax disclosures, primarily through standardization and disaggregation of rate reconciliation categories and income taxes paid by jurisdiction. The amendments are effective for the Company's annual periods beginning after December 15, 2024, with the option to early adopt at any time before the effective date. ASU 2023-09 allows for adoption on a prospective or retrospective basis. We are currently evaluating the impact of the standard on our consolidated financial statements and disclosures.

In November 2023, the FASB issued ASU 2023-07, *Segment Reporting (Topic 280) Improvements to Reportable Segment Disclosures*. ASU 2023-07 will improve reportable segment disclosure requirements, primarily through enhanced segment expense disclosures on an interim and annual basis. The update is effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024, with the option to early adopt at any time before the effective date. ASU 2023-07 requires adoption on a retrospective basis. We are currently evaluating the impact of the standard on our consolidated financial statements and disclosures.

In July 2023, the SEC adopted the final rule under SEC Release No. 33-11216, *Cybersecurity Risk Management, Strategy, Governance, and Incident Disclosure*, requiring disclosure of material cybersecurity incidents on Form 8-K and periodic disclosure of a registrant's cybersecurity risk management, strategy and governance in annual reports. We adopted the Regulation S-K Item 6 disclosure requirements during the fourth quarter of 2023 and the Form 8-K incident disclosure requirements went into effect for us on December 18, 2023. The adoption of this final rule did not have a material impact on our consolidated financial statements and the additional disclosure requirements were included within Item 1C. *Cybersecurity*.

NOTE 4. ACQUISITIONS

On October 1, 2023, Olin acquired the assets of White Flyer Targets, LLC ("White Flyer") from Reagent Diversified Holdings, Inc. for $63.9 million, subject to normal post-closing adjustments. The acquisition was financed with cash on hand. White Flyer designs, manufactures and sells recreational trap, skeet, international and sporting clay targets and has been included in Olin's Winchester segment. We recorded the preliminary aggregate excess purchase price over identifiable net tangible and intangible assets acquired and liabilities assumed, which included a preliminary allocation of $2.7 million of goodwill allocated to our Winchester segment and $4.5 million of intangible assets subject to amortization. The preliminary total assets acquired, excluding goodwill and intangibles, and liabilities assumed amounted to $66.9 million and $10.2 million, respectively. The acquisition is not material, and therefore, supplemental pro forma financial information is not provided.

NOTE 5. RESTRUCTURING CHARGES

As a result of weak global resin demand and higher cost structures within the European region, we began a review of our global Epoxy asset footprint to optimize the most productive and cost-effective assets to support our strategic operating model. As part of this review, we announced operational cessations in the fourth quarter of 2022 and the first half of 2023 (collectively, Epoxy Optimization Plan).

On June 20, 2023, we announced we had made the decision to cease all remaining operations at our Gumi, South Korea facility, reduce epoxy resin capacity at our Freeport, TX facility, and reduce our sales and support staffing across Asia. These actions were substantially completed by December 31, 2023. On March 21, 2023, we announced we had made the decision to cease operations at our cumene facility in Terneuzen, Netherlands and solid epoxy resin production at our facilities in Gumi, South Korea and Guaruja, Brazil. The closures were completed in the first quarter 2023. During the fourth quarter of 2022, we committed to and completed a plan to close down one of our bisphenol production lines at our Stade, Germany site. For the year ended December 31, 2023 and 2022, we recorded pretax restructuring charges of $73.4 million and $8.0 million, respectively, for the write-off of equipment and facility costs, employee severance and related benefit costs, contract termination costs and facility exit costs related to these actions. We expect to incur additional restructuring charges through 2025 of approximately $25 million related to these actions.

During 2021, we announced that we had made the decision to permanently close our diaphragm-grade chlor alkali capacity, representing 400,000 tons, at our McIntosh, AL facility (McIntosh Plan). The closure was completed during the third quarter of 2022. For the years ended December 31, 2023, 2022 and 2021, we recorded pretax restructuring charges of $4.7 million, $8.3 million and $5.6 million, respectively, for write-off of equipment and facility costs, lease and other contract termination costs and for facility exit costs related to this action. We expect to incur additional restructuring charges through 2027 of approximately $20 million related to these actions.

Olin committed to a productivity initiative to align the organization with our strategic operating model and improve efficiencies (collectively, Productivity Plan). These actions and related activities were completed during the second quarter of 2021. For the year ended December 31, 2021, we recorded pretax restructuring charges of $10.3 million for employee severance and related benefit costs related to these actions. We do not expect to incur additional restructuring charges related to these actions.

On January 18, 2021, we announced we had made the decision to permanently close our trichloroethylene and anhydrous hydrogen chloride liquefaction facilities in Freeport, TX (collectively, Freeport 2021 Plan), which were completed in the fourth quarter of 2021. For the years ended December 31, 2023, 2022 and 2021, we recorded pretax restructuring charges of $4.0 million, $2.6 million and $6.5 million, respectively, for facility exit costs related to these actions. We expect to incur additional restructuring charges through 2025 of approximately $10 million related to these actions.

On December 11, 2019, we announced that we had made the decision to permanently close a chlor alkali plant with a capacity of 230,000 tons and our vinylidene chloride (VDC) production facility, both in Freeport, TX (collectively, Freeport 2019 Plan). The VDC facility and related chlor alkali plant were closed during the fourth quarter of 2020 and second quarter of 2021, respectively. For the years ended December 31, 2023, 2022 and 2021, we recorded pretax restructuring charges of $7.5 million, $6.0 million and $3.9 million, respectively, for facility exit costs related to these actions. We expect to incur additional restructuring charges through 2026 of approximately $15 million related to these actions.

On March 21, 2016, we announced that we had made the decision to close a combined total of 433,000 tons of chlor alkali capacity across three separate locations (collectively, Chlor Alkali 2016 Plan). For the years ended December 31, 2022 and 2021, we recorded pretax restructuring charges of $0.4 million and $1.6 million, respectively, for the lease and other contract termination costs and facility exit costs related to these actions. We do not expect to incur additional restructuring charges related to these capacity reductions.

The following table summarizes the 2023, 2022 and 2021 activities by major component of these restructuring actions and the remaining balances of accrued restructuring costs as of December 31, 2023, 2022 and 2021:

	Employee Severance and Related Benefit Costs	*Lease and Other Contract Termination Costs*	*Facility Exit Costs*	*Write-off of Equipment and Facility*	*Total*
			($ in millions)		
Balance at January 1, 2021	$ 1.8	$ 1.7	$ —	$ —	$ 3.5
Restructuring charges	10.3	6.0	11.6	—	27.9
Amounts utilized	(5.2)	(2.3)	(11.6)	—	(19.1)
Balance at December 31, 2021	6.9	5.4	—	—	12.3
Restructuring charges	7.4	1.1	13.5	3.3	25.3
Amounts utilized	(4.9)	(2.3)	(13.5)	(3.3)	(24.0)
Balance at December 31, 2022	9.4	4.2	—	—	13.6
Restructuring charges	8.4	29.1	34.4	17.7	89.6
Amounts utilized	(7.0)	(16.6)	(34.4)	(17.7)	(75.7)
Balance at December 31, 2023	$ 10.8	$ 16.7	$ —	$ —	$ 27.5

The following table summarizes the cumulative restructuring charges of these restructuring actions by major component through December 31, 2023:

	Chlor Alkali Products and Vinyls				*Epoxy*	*Corporate/Other*	
	McIntosh Plan	*Freeport 2021 Plan*	*Freeport 2019 Plan*	*Chlor Alkali 2016 Plan*	*Epoxy Optimization Plan*	*Productivity Plan*	*Total*
				($ in millions)			
Write-off of equipment and facility	$ 2.7	$ —	$ 58.9	$ 78.1	$ 18.3	$ —	$ 158.0
Employee severance and related benefit costs	—	—	2.1	6.7	15.8	10.3	34.9
Facility exit costs	9.5	13.1	19.1	53.2	18.2	—	113.1
Employee relocation costs	—	—	—	1.7	—	—	1.7
Lease and other contract termination costs	6.4	—	—	43.0	29.1	—	78.5
Total cumulative restructuring charges	$ 18.6	$ 13.1	$ 80.1	$ 182.7	$ 81.4	$ 10.3	$ 386.2

As of December 31, 2023, we have incurred cash expenditures of $200.7 million and non-cash charges of $158.0 million related to these restructuring actions. The remaining balance of $27.5 million is expected to be paid out through 2028.

NOTE 6. EARNINGS PER SHARE

Basic and diluted net income (loss) per share are computed by dividing net income (loss) by the weighted-average number of common shares outstanding. Diluted net income (loss) per share reflects the dilutive effect of stock-based compensation.

Computation of Net Income per Share	Years ended December 31, 2023	2022	2021
	(In millions, except per share data)		
Net income	$ 452.0	$ 1,326.9	$ 1,296.7
Net loss attributable to noncontrolling interests	(8.2)	—	—
Net income attributable to Olin Corporation	460.2	1,326.9	1,296.7
Basic shares	125.9	144.9	159.1
Basic net income attributable to Olin Corporation per share	$ 3.66	$ 9.16	$ 8.15
Diluted shares:			
Basic shares	125.9	144.9	159.1
Stock-based compensation	2.9	3.6	3.9
Diluted shares	128.8	148.5	163.0
Diluted net income attributable to Olin Corporation per share	$ 3.57	$ 8.94	$ 7.96

The computation of dilutive shares from stock-based compensation does not include 1.2 million, 0.8 million and 0.1 million shares in 2023, 2022 and 2021, respectively, as their effect would have been anti-dilutive.

NOTE 7. ACCOUNTS RECEIVABLES

We maintain a $425.0 million Receivables Financing Agreement (Receivables Financing Agreement) that is scheduled to mature on October 14, 2025. Under the Receivables Financing Agreement, our eligible trade receivables are used for collateralized borrowings and continue to be serviced by us. In addition, the Receivables Financing Agreement incorporates the net leverage ratio covenant that is contained in the $1,550.0 million Senior Credit Facility. As of December 31, 2023 and 2022, we had $328.5 million and $300.0 million drawn under the agreement. As of December 31, 2023, $456.6 million of our trade receivables were pledged as collateral and we had $33.3 million of additional borrowing capacity under the Receivables Financing Agreement, which was limited by our borrowing base.

Olin also has trade accounts receivable factoring arrangements (AR Facilities) and pursuant to the terms of the AR Facilities, certain of our domestic subsidiaries may sell their accounts receivable up to a maximum of $175.5 million and certain of our foreign subsidiaries may sell their accounts receivable up to a maximum of €22.0 million. We will continue to service the outstanding accounts sold. These receivables qualify for sales treatment under ASC 860 "Transfers and Servicing" and, accordingly, the proceeds are included in net cash provided by operating activities in the consolidated statements of cash flows. The following table summarizes the AR Facilities activity:

AR Facilities	December 31, 2023	2022
	($ in millions)	
Beginning balance	$ 111.8	$ 83.3
Gross receivables sold	899.0	1,049.7
Payments received from customers on sold accounts	(947.5)	(1,021.2)
Ending balance	$ 63.3	$ 111.8

The factoring discount paid under the AR Facilities is recorded as interest expense on the consolidated statements of operations. The factoring discount for the years ended December 31, 2023 and 2022 was $4.7 million and $3.1 million, respectively. The agreements are without recourse, and therefore, no recourse liability has been recorded as of December 31, 2023.

Our consolidated balance sheets included an allowance for doubtful accounts receivables of $13.1 million and $12.6 million and other receivables of $85.3 million and $71.6 million at December 31, 2023 and 2022, respectively, which were included in receivables, net.

NOTE 8. INVENTORIES

Inventories	December 31, 2023	December 31, 2022
	($ in millions)	
Supplies	$ 160.3	$ 137.6
Raw materials	171.1	201.2
Work in process	153.5	199.6
Finished goods	507.6	559.3
Inventories excluding LIFO reserve	992.5	1,097.7
LIFO reserve	(133.7)	(155.8)
Inventories, net	$ 858.8	$ 941.9

Inventories valued using the LIFO method comprised 56% and 59% of the total inventories at December 31, 2023 and 2022, respectively. The replacement cost of our inventories would have been approximately $133.7 million and $155.8 million higher than that reported at December 31, 2023 and 2022, respectively.

NOTE 9. PROPERTY, PLANT AND EQUIPMENT

Property Plant and Equipment	*Useful Lives*	December 31, 2023	December 31, 2022
		($ in millions)	
Land and improvements to land	10-20 Years[1]	$ 283.1	$ 283.5
Buildings and building equipment	10-30 Years	442.7	412.0
Machinery and equipment	3-20 Years	6,410.5	6,181.1
Leasehold improvements	3-11 Years	8.5	8.5
Construction in progress		201.2	202.1
Property, plant and equipment		7,346.0	7,087.2
Accumulated depreciation		(4,826.4)	(4,413.1)
Property, plant and equipment, net		$ 2,519.6	$ 2,674.1

(1) Useful life is exclusive to land improvements.

The weighted-average useful life of machinery and equipment at December 31, 2023, was 11 years. Depreciation expense was $421.8 million, $469.9 million and $443.3 million for 2023, 2022 and 2021, respectively. Interest capitalized was $2.8 million, $3.1 million and $3.2 million for 2023, 2022 and 2021, respectively.

The consolidated statements of cash flows for the years ended December 31, 2023, 2022 and 2021, included an increase (decrease) of $5.3 million, $(4.2) million and $6.4 million, respectively, to capital expenditures, with the corresponding change to accounts payable and accrued liabilities, related to purchases of property, plant and equipment included in accounts payable and accrued liabilities at December 31, 2023, 2022 and 2021.

NOTE 10. OTHER ASSETS

Included in other assets were the following:

Other Assets	December 31, 2023	December 31, 2022
	($ in millions)	
Supply contracts	$ 1,061.8	$ 1,048.0
Other	56.7	54.5
Other assets	$ 1,118.5	$ 1,102.5

For the year ended December 31, 2023 and 2022, payments of $64.5 million and $37.7 million, respectively, were made under other long-term supply contracts for energy modernization projects on the U.S. Gulf Coast. The weighted-average useful life of long-term supply contracts at December 31, 2023, was 20 years. For the years ended December 31, 2023, 2022 and 2021, amortization expense of $71.2 million, $70.4 million and $69.4 million, respectively, was recognized within cost of goods sold related to our supply contracts and is reflected in depreciation and amortization on the consolidated statements of cash flows.

We estimate that amortization expense will be approximately $71.4 million in 2024, 2025 and 2026, $69.8 million in 2027 and $66.5 million in 2028 related to our long-term supply contracts. The long-term supply contracts are monitored for impairment each reporting period.

NOTE 11. GOODWILL AND INTANGIBLE ASSETS

Changes in the carrying value of goodwill were as follows:

Goodwill	***Chlor Alkali Products and Vinyls***	***Epoxy***	***Winchester***	***Total***
	($ in millions)			
Balance at January 1, 2022[(1)]	$ 1,275.6	$ 145.0	$ —	$ 1,420.6
Foreign currency translation adjustment	0.2	0.1	—	0.3
Balance at December 31, 2022[(1)]	1,275.8	145.1	—	1,420.9
Goodwill acquired during the year	—	—	2.7	2.7
Foreign currency translation adjustment	0.3	0.1	—	0.4
Balance at December 31, 2023[(1)]	$ 1,276.1	$ 145.2	$ 2.7	$ 1,424.0

(1) Includes cumulative goodwill impairment of $557.6 million and $142.2 million in Chlor Alkali Products and Vinyls and Epoxy, respectively.

Intangible assets consisted of the following:

		December 31,					
		2023			***2022***		
Intangible Assets	***Useful Lives***	***Gross Amount***	***Accumulated Amortization***	***Net***	***Gross Amount***	***Accumulated Amortization***	***Net***
		($ in millions)					
Customers, customer contracts and relationships	10-15 Years	$ 671.7	$ (437.5)	$ 234.2	$ 669.1	$ (401.2)	$ 267.9
Trade names	7 Years	3.6	(0.2)	3.4	—	—	—
Acquired technology	4-7 Years	94.4	(90.4)	4.0	93.1	(88.3)	4.8
Other	10 Years	4.9	(0.7)	4.2	1.8	(0.7)	1.1
Total intangible assets		$ 774.6	$ (528.8)	$ 245.8	$ 764.0	$ (490.2)	$ 273.8

Amortization expense relating to intangible assets was $37.0 million, $55.3 million and $63.1 million in 2023, 2022 and 2021, respectively.

Estimated amortization expense relating to intangible assets for the subsequent five-year periods are as follows:

Estimated Amortization Expense	*($ in millions)*
2024	$ 37.6
2025	37.2
2026	35.5
2027	35.4
2028	35.2

During the fourth quarter of 2023, we performed our qualitative assessment of our intangible assets. Based on our qualitative impairment assessment, it is more likely than not that the fair value of our intangible assets is greater than the carrying amount as of December 31, 2023. No impairment on our intangible assets was recorded in 2023, 2022 or 2021.

NOTE 12. DEBT

Financing Obligations	*December 31,* 2023	2022
	($ in millions)	
Variable-rate Term Loan Facility, due 2027 (6.955% and 5.923% at December 31, 2023 and 2022, respectively)	$ 341.3	$ 350.0
Variable-rate Senior Revolving Credit Facility, due 2027 (6.955% at December 31, 2023)	68.0	—
Variable-rate Recovery Zone bonds, due 2024-2035 (6.420% and 5.198% at December 31, 2023 and 2022, respectively)	103.0	103.0
Variable-rate Go Zone bonds, due 2024 (6.420% and 5.198% at December 31, 2023 and 2022, respectively)	50.0	50.0
Variable-rate industrial development and environmental improvement obligations, due 2025 (6.45% and 4.55% at December 31, 2023 and 2022, respectively)	2.9	2.9
9.50% senior notes, due 2025	108.6	108.6
5.625% senior notes, due 2029	669.3	669.3
5.125% senior notes, due 2027	500.0	500.0
5.00% senior notes, due 2030	515.3	515.3
Receivables Financing Agreement (See Note 7)	328.5	300.0
Finance lease obligations	—	1.9
Other:		
Deferred debt issuance costs	(16.6)	(20.1)
Unamortized bond original issue discount	(0.2)	(0.2)
Total debt	2,670.1	2,580.7
Amounts due within one year	78.8	9.7
Total long-term debt	$ 2,591.3	$ 2,571.0

Senior Credit Facility

On October 11, 2022, we entered into a $1,550.0 million senior credit facility (Senior Credit Facility) that replaced our 2021 Senior Credit Facility. The Senior Credit Facility includes a senior term loan facility with aggregate commitments of $350.0 million (Term Loan Facility) and a senior revolving credit facility with aggregate commitments of $1,200.0 million (Senior Revolving Credit Facility). The Term Loan Facility was fully drawn on the closing date with the proceeds of the Term Loan Facility used to refinance the loans and commitments outstanding under the 2021 Senior Credit Facility. The Term Loan Facility requires principal amortization payments which began on March 31, 2023, at a rate of 0.625% per quarter through the end of 2024, increasing to 1.250% per quarter thereafter until maturity. The maturity date for the Senior Credit Facility is October 11, 2027.

The Senior Revolving Credit Facility includes a $100.0 million letter of credit subfacility. At December 31, 2023, we had $1,131.6 million available under our $1,200.0 million Senior Revolving Credit Facility because we had $68.0 million borrowed under the facility and issued $0.4 million of letters of credit.

We were in compliance with all covenants and restrictions under all our outstanding credit agreements as of December 31, 2023, and no event of default had occurred that would permit the lenders under our outstanding credit agreements to accelerate the debt if not cured. In the future, our ability to generate sufficient operating cash flows, among other factors, will determine the amounts available to be borrowed under these facilities. As a result of our restrictive covenant related to the net leverage ratio, the maximum additional borrowings available to us could be limited in the future. The limitation, if an amendment or waiver from our lenders is not obtained, could restrict our ability to borrow the maximum amounts available under the Senior Revolving Credit Facility and the Receivables Financing Agreement. As of December 31, 2023, there were no covenants or other restrictions that limited our ability to borrow.

Senior Notes and Other Financing

During 2023 and 2022, activity of our outstanding debt included:

Debt Instruments	***Long-term Debt Borrowings (Repayments) for the Year Ended December 31,***	
	2023	***2022***
	($ in millions)	
Borrowings		
Senior Revolving Credit Facility	$ 375.0	$ 320.0
Receivables Financing Agreement	332.7	95.0
Total borrowings	707.7	415.0
Repayments		
5.50% senior notes, due 2022 (2022 Notes)	—	(200.0)
Senior Revolving Credit Facility	(307.0)	(320.0)
Term Loan Facility	(8.7)	—
Receivables Financing Agreement	(304.2)	(95.0)
Finance leases	(1.9)	(1.1)
Total repayments	(621.8)	(616.1)
Long-term debt borrowings (repayments), net	$ 85.9	$ (201.1)

We incurred a loss on debt extinguishment of $152.2 million during the year ended December 31, 2021, which is included as interest expense in the consolidated statements of operations. The loss includes the payment of bond redemption premiums of $137.7 million for the year ended December 31, 2021, as well as the write-off of deferred debt issuance costs, write-off of bond original issue discount and recognition of deferred fair value interest rate swap losses of $14.5 million for the year ended December 31, 2021, associated with the optional prepayment of existing debt. The cash payments related to the early redemption premiums for the debt extinguishments are classified as cash outflows from financing activities on the consolidated statements of cash flows for year ended December 31, 2021.

During the year ended December 31, 2022, Olin redeemed the full aggregate principal amount $200.0 million of the outstanding 2022 Notes which became due utilizing cash on hand.

For the years ended December 31, 2022 and 2021, we paid debt issuance costs of $4.4 million and $3.9 million, respectively, related to financing transactions.

At December 31, 2023, we had $120.7 million in letters of credit outstanding, of which $0.4 million were issued under our Senior Revolving Credit Facility. The letters of credit are used to support certain long-term debt, workers compensation insurance policies, plant closure and post-closure obligations, international payment obligations and international pension funding requirements.

Annual maturities of long-term debt are as follows:

Expected Annual Maturities	*($ in millions)*
2024	$ 78.8
2025	457.5
2026	17.5
2027	865.5
2028	—
Thereafter	1,267.6
Total	$ 2,686.9

NOTE 13. PENSION PLANS

We sponsor domestic and foreign defined benefit pension plans for eligible employees and retirees. Most of our domestic employees participate in defined contribution plans. However, a portion of our bargaining hourly employees continue to participate in our domestic qualified defined benefit pension plans under a flat-benefit formula. Our funding policy for the qualified defined benefit pension plans is consistent with the requirements of federal laws and regulations. Our foreign subsidiaries maintain pension and other benefit plans, which are consistent with local statutory practices.

Our domestic qualified defined benefit pension plan provides that if, within three years following a change of control of Olin, any corporate action is taken or filing made in contemplation of, among other things, a plan termination or merger or other transfer of assets or liabilities of the plan, and such termination, merger or transfer thereafter takes place, plan benefits would automatically be increased for affected participants (and retired participants) to absorb any plan surplus (subject to applicable collective bargaining requirements).

Based on our plan assumptions and estimates, we will not be required to make any cash contributions to the domestic qualified defined benefit pension plan at least through 2024.

We have international qualified defined benefit pension plans to which we made cash contributions of $1.0 million, $1.3 million and $1.1 million in 2023, 2022 and 2021, respectively, and we anticipate less than $5 million of cash contributions to international qualified defined benefit pension plans in 2024.

Pension Obligations and Funded Status

Changes in the benefit obligation and plan assets were as follows:

	December 31, 2023			December 31, 2022		
	U.S.	Foreign	Total	U.S.	Foreign	Total
Change in Benefit Obligation	($ in millions)					
Benefit obligation - beginning of year	$ 1,868.4	$ 251.1	$ 2,119.5	$ 2,506.0	$ 382.3	$ 2,888.3
Service cost	0.3	5.4	5.7	0.5	7.9	8.4
Interest cost	96.3	9.1	105.4	57.3	4.1	61.4
Actuarial loss (gain)	47.1	14.9	62.0	(556.1)	(113.7)	(669.8)
Benefits paid	(141.0)	(5.9)	(146.9)	(139.3)	(6.1)	(145.4)
Plan participant's contributions	—	0.2	0.2	—	0.3	0.3
Settlements	—	(7.5)	(7.5)	—	—	—
Foreign currency translation adjustments	—	9.8	9.8	—	(23.7)	(23.7)
Benefit obligation - end of year	$ 1,871.1	$ 277.1	$ 2,148.2	$ 1,868.4	$ 251.1	$ 2,119.5

	December 31, 2023			December 31, 2022		
	U.S.	Foreign	Total	U.S.	Foreign	Total
Change in Plan Assets	($ in millions)					
Fair value of plan assets - beginning of year	$ 1,824.9	$ 63.3	$ 1,888.2	$ 2,429.6	$ 76.1	$ 2,505.7
Actual return on plans' assets	173.1	4.0	177.1	(465.6)	(7.6)	(473.2)
Employer contributions	0.2	1.0	1.2	0.2	1.4	1.6
Benefits paid	(141.0)	(2.8)	(143.8)	(139.3)	(3.1)	(142.4)
Settlements	—	(7.1)	(7.1)	—	—	—
Foreign currency translation adjustments	—	2.4	2.4	—	(3.5)	(3.5)
Fair value of plan assets - end of year	$ 1,857.2	$ 60.8	$ 1,918.0	$ 1,824.9	$ 63.3	$ 1,888.2

	December 31, 2023			December 31, 2022		
	U.S.	Foreign	Total	U.S.	Foreign	Total
Funded Status	($ in millions)					
Qualified plans	$ (11.9)	$ (214.6)	$ (226.5)	$ (41.4)	$ (185.7)	$ (227.1)
Non-qualified plans	(2.0)	(1.7)	(3.7)	(2.1)	(2.1)	(4.2)
Total funded status	$ (13.9)	$ (216.3)	$ (230.2)	$ (43.5)	$ (187.8)	$ (231.3)

We recorded a $11.9 million after-tax charge ($16.4 million pretax) to shareholders' equity as of December 31, 2023, for our pension plans. This charge primarily reflected a 30-basis point decrease in the domestic pension plans' discount rate and a 50-basis point decrease in the international defined benefit pension plans' discount rate, partially offset by a favorable performance on plan assets during 2023. In 2022, we recorded a $37.2 million after-tax benefit ($59.9 million pretax) to shareholders' equity as of December 31, 2022, for our pension plans. This benefit primarily reflected a 260-basis point increase in the domestic pension plans' discount rate and a 230-basis point increase in the international defined benefit pension plans' discount rate, partially offset by unfavorable performance on plan assets during 2022.

The $62.0 million actuarial loss for 2023 was primarily due to a 30-basis point decrease in the domestic pension plans' discount rate and a 50-basis point decrease in the international defined benefit pension plans' discount rate. The $669.8 million actuarial gain for 2022 was primarily due to a 260-basis point increase in the domestic pension plans' discount rate and a 230-basis point increase in the international defined benefit pension plans' discount rate.

Amounts recognized in the consolidated balance sheets consisted of:

	December 31, 2023			*December 31, 2022*		
	U.S.	*Foreign*	*Total*	*U.S.*	*Foreign*	*Total*
			($ in millions)			
Prepaid benefit cost in noncurrent assets	$ —	$ 1.8	$ 1.8	$ —	$ 3.9	$ 3.9
Accrued benefit in current liabilities	(0.6)	(5.6)	(6.2)	(0.5)	(0.2)	(0.7)
Accrued benefit in noncurrent liabilities	(13.3)	(212.5)	(225.8)	(43.0)	(191.5)	(234.5)
Accumulated other comprehensive loss	558.3	(5.4)	552.9	558.1	(21.4)	536.7
Net balance sheet impact	$ 544.4	$ (221.7)	$ 322.7	$ 514.6	$ (209.2)	$ 305.4

At December 31, 2023 and 2022, the benefit obligation of non-qualified pension plans was $3.7 million and $4.2 million, respectively, and was included in the above pension benefit obligation. There were no plan assets for these non-qualified pension plans.

At December 31, 2023, future benefit payments for qualified and non-qualified plans were as follows:

	Non-qualified Plans	*Qualified Plans*
Expected Benefit Payments	*($ in millions)*	
2024	$ 0.6	$ 152.2
2025	0.4	143.6
2026	0.4	137.8
2027	0.3	132.3
2028	0.2	126.0

	December 31,	
	2023	*2022*
	($ in millions)	
Projected benefit obligation	$ 2,148.2	$ 2,119.5
Accumulated benefit obligation	2,131.7	2,107.5
Fair value of plans' assets	1,918.0	1,888.2

Components of Net Periodic Benefit Income	2023	2022	2021
	Years Ended December 31, ($ in millions)		
Service cost	$ 5.7	$ 8.4	$ 11.4
Interest cost	105.4	61.4	51.3
Expected return on plans' assets	(131.4)	(136.7)	(142.3)
Amortization of prior service cost	(0.4)	(0.7)	(0.6)
Recognized actuarial loss	—	34.6	52.7
Net periodic benefit income	$ (20.7)	$ (33.0)	$ (27.5)

Included in Pretax Other Comprehensive Income (Loss)	2023	2022	2021
	Years Ended December 31, ($ in millions)		
Liability adjustment	$ 16.4	$ (59.9)	$ (245.9)
Amortization of prior service costs and actuarial losses	0.4	(33.9)	(52.1)

The service cost component of net periodic benefit (income) cost related to the employees of the operating segments are allocated to the operating segments based on their respective estimated census data.

Pension Plan Assumptions

Certain actuarial assumptions, such as discount rate and long-term rate of return on plan assets, have a significant effect on the amounts reported for net periodic benefit cost and accrued benefit obligation amounts. We use a measurement date of December 31 for our pension plans.

	U.S. Pension Benefits			Foreign Pension Benefits		
Weighted-average Assumptions	2023	2022	2021	2023	2022	2021
Discount rate—periodic benefit cost	5.50 % [1]	2.90 %	2.40 %	3.70 %	1.40 %	0.80 %
Expected return on plans' assets	6.75 %	6.75 %	7.25 %	4.40 %	3.80 %	4.20 %
Rate of compensation increase	3.00 %	3.00 %	3.00 %	3.40 %	3.00 %	3.00 %
Discount rate—benefit obligation	5.20 %	5.50 %	2.90 %	3.20 %	3.70 %	1.40 %

(1) The discount rate—periodic benefit cost for our domestic qualified pension plan is comprised of the discount rate used to determine interest costs of 5.3% and the discount rate used to determine service costs of 5.5%.

The discount rate is based on a hypothetical yield curve represented by a series of annualized individual zero-coupon bond spot rates for maturities ranging from one-half to thirty years. The bonds used in the yield curve must have a rating of AA or better per Standard & Poor's, be non-callable, and have at least $250 million par outstanding. The yield curve is then applied to the projected benefit payments from the plan. Based on these bonds and the projected benefit payment streams, the single rate that produces the same yield as the matching bond portfolio is used as the discount rate.

The long-term expected rate of return on plan assets represents an estimate of the long-term rate of returns on the investment portfolio consisting of equities, fixed income and alternative investments. We use long-term historical actual return information, the allocation mix of investments that comprise plan assets and forecast estimates of long-term investment returns, including inflation rates, by reference to external sources. The historical rates of return on plan assets have been 6.7% for the last 5 years, 6.7% for the last 10 years and 7.8% for the last 15 years. The following rates of return by asset class were considered in setting the long-term rate of return assumption:

Asset Class	Rate of Return		
U.S. equities	7%	to	11%
Non-U.S. equities	8%	to	12%
Fixed income/cash	3%	to	7%
Alternative investments	5%	to	15%

Plan Assets

Our pension plan asset allocations at December 31, 2023 and 2022 by asset class were as follows:

Asset Class	Percentage of Plan Assets 2023	2022
U.S. equities	3 %	4 %
Non-U.S. equities	4 %	11 %
Fixed income/cash	50 %	38 %
Alternative investments	43 %	47 %

The Alternative Investments asset class includes hedge funds, real estate and private equity investments. The Alternative Investments class is intended to help diversify risk and increase returns by utilizing a broader group of assets.

A master trust was established by our pension plan to accumulate funds required to meet benefit payments of our plan and is administered solely in the interest of our plan's participants and their beneficiaries. The master trust's investment horizon is long term. Its assets are managed by professional investment managers or invested in professionally managed investment vehicles.

Our pension plan maintains a portfolio of assets designed to achieve an appropriate risk adjusted return. The portfolio of assets is also structured to manage risk by diversifying assets across asset classes whose return patterns are not highly correlated, investing in passively and actively managed strategies and in value and growth styles, and by periodic rebalancing of asset classes, strategies and investment styles to objectively set targets.

As of December 31, 2023, the following target allocation and ranges have been set for each asset class:

Asset Class	Target Allocation	Target Range
U.S. equities[(1)]	15 %	5-25
Non-U.S. equities[(1)]	10 %	0-30
Fixed income/cash[(1)]	75 %	30-95
Alternative investments	— %	0-30

(1) The target allocation for these asset classes includes alternative investments, primarily hedge funds, based on the underlying investments in each hedge fund.

Determining which hierarchical level an asset or liability falls within requires significant judgment. The following table summarizes our domestic and foreign defined benefit pension plans assets measured at fair value as of December 31, 2023:

Asset Class	Investments Measured at Net Asset Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
			($ in millions)		
Equity Securities					
U.S. equities	$ 12.2	$ 36.6	$ —	$ —	$ 48.8
Non-U.S. equities	85.4	0.1	0.5	—	86.0
Fixed Income/Cash					
Cash	—	227.7	—	—	227.7
Government treasuries	—	—	244.9	—	244.9
Corporate debt instruments	286.3	—	0.5	—	286.8
Asset-backed securities	192.7	—	14.8	—	207.5
Alternative Investments					
Hedge fund of funds	599.5	—	—	—	599.5
Real estate funds	20.1	—	—	—	20.1
Private equity funds	196.7	—	—	—	196.7
Total assets	$ 1,392.9	$ 264.4	$ 260.7	$ —	$ 1,918.0

The following table summarizes our domestic and foreign defined benefit pension plans assets measured at fair value as of December 31, 2022:

Asset Class	*Investments Measured at Net Asset Value*	*Quoted Prices in Active Markets for Identical Assets (Level 1)*	*Significant Other Observable Inputs (Level 2)*	*Significant Unobservable Inputs (Level 3)*	*Total*
			($ in millions)		
Equity Securities					
U.S. equities	$ 19.2	$ 54.4	$ —	$ —	$ 73.6
Non-U.S. equities	206.4	0.2	0.1	—	206.7
Fixed Income/Cash					
Cash	—	102.2	—	—	102.2
Government treasuries	—	—	171.2	—	171.2
Corporate debt instruments	345.2	—	0.5	—	345.7
Asset-backed securities	90.1	—	19.0	—	109.1
Alternative Investments					
Hedge fund of funds	685.1	—	—	—	685.1
Real estate funds	25.2	—	—	—	25.2
Private equity funds	169.4	—	—	—	169.4
Total assets	$ 1,540.6	$ 156.8	$ 190.8	$ —	$ 1,888.2

U.S. equities—This class included actively and passively managed equity investments in common stock and commingled funds comprised primarily of large-capitalization stocks with value, core and growth strategies.

Non-U.S. equities—This class included actively managed equity investments in commingled funds comprised primarily of international large-capitalization stocks from both developed and emerging markets.

Fixed income and cash—This class included commingled funds comprised of debt instruments issued by the U.S. and Canadian Treasuries, U.S. Agencies, corporate debt instruments, asset- and mortgage-backed securities and cash.

Hedge fund of funds—This class included a hedge fund which invests in the following types of hedge funds:

> *Event driven hedge funds*—This class included hedge funds that invest in securities to capture excess returns that are driven by market or specific company events including activist investment philosophies and the arbitrage of equity and private and public debt securities.
>
> *Market neutral hedge funds*—This class included investments in U.S. and international equities and fixed income securities while maintaining a market neutral position in those markets.
>
> *Other hedge funds*—This class primarily included long-short equity strategies and a global macro fund which invested in fixed income, equity, currency, commodity and related derivative markets.

Real estate funds—This class included several funds that invest primarily in U.S. commercial real estate.

Private equity funds—This class included several private equity funds that invest primarily in infrastructure and U.S. power generation and transmission assets.

U.S. equities and non-U.S. equities are primarily valued at the net asset value provided by the independent administrator or custodian of the commingled fund. The net asset value is based on the value of the underlying equities, which are traded on an active market. U.S. equities are also valued at the closing price reported in an active market on which the individual securities are traded. A portion of our fixed income investments are valued at the net asset value provided by the independent administrator or custodian of the fund. The net asset value is based on the underlying assets, which are valued using inputs such as the closing price reported, if traded on an active market, values derived from comparable securities of issuers with similar credit ratings, or under a discounted cash flow approach that utilizes observable inputs, such as current yields of similar instruments, but includes adjustments for risks that may not be observable such as certain credit and liquidity risks. Alternative investments are valued at the net asset value as determined by the independent administrator or custodian of the fund. The net asset value is based on the underlying investments, which are valued using inputs such as quoted market prices of identical instruments, discounted future cash flows, independent appraisals and market-based comparable data.

NOTE 14. POSTRETIREMENT BENEFITS

We provide certain postretirement healthcare (medical) and life insurance benefits for eligible active and retired domestic employees. The healthcare plans are contributory with participants' contributions adjusted annually based on medical rates of inflation and plan experience. We use a measurement date of December 31 for our postretirement plans.

Other Postretirement Benefits Obligations and Funded Status

Changes in the benefit obligation were as follows:

	December 31, 2023			December 31, 2022		
	U.S.	Foreign	Total	U.S.	Foreign	Total
Change in Benefit Obligation	($ in millions)					
Benefit obligation - beginning of year	$ 28.5	$ 6.4	$ 34.9	$ 39.3	$ 11.2	$ 50.5
Service cost	0.6	0.1	0.7	0.8	0.3	1.1
Interest cost	1.4	0.4	1.8	0.8	0.3	1.1
Actuarial loss (gain)	1.5	0.2	1.7	(8.0)	(4.2)	(12.2)
Benefits paid	(3.8)	(0.3)	(4.1)	(4.4)	(0.4)	(4.8)
Foreign currency translation adjustments	—	0.2	0.2	—	(0.8)	(0.8)
Benefit obligation - end of year	$ 28.2	$ 7.0	$ 35.2	$ 28.5	$ 6.4	$ 34.9

	December 31, 2023			December 31, 2022		
	U.S.	Foreign	Total	U.S.	Foreign	Total
	($ in millions)					
Funded status	$ (28.2)	$ (7.0)	$ (35.2)	$ (28.5)	$ (6.4)	$ (34.9)

We recorded a $1.3 million after-tax charge ($1.7 million pretax) to shareholders' equity as of December 31, 2023, for our other postretirement plans. In 2022, we recorded an after-tax benefit of $9.6 million ($12.2 million pretax) to shareholders' equity as of December 31, 2022, for our other postretirement plans.

Amounts recognized in the consolidated balance sheets consisted of:

	December 31, 2023			December 31, 2022		
	U.S.	Foreign	Total	U.S.	Foreign	Total
	($ in millions)					
Accrued benefit in current liabilities	$ (2.4)	$ (0.3)	$ (2.7)	$ (2.6)	$ (0.3)	$ (2.9)
Accrued benefit in noncurrent liabilities	(25.8)	(6.7)	(32.5)	(25.9)	(6.1)	(32.0)
Accumulated other comprehensive loss	11.0	(2.7)	8.3	10.3	(3.1)	7.2
Net balance sheet impact	$ (17.2)	$ (9.7)	$ (26.9)	$ (18.2)	$ (9.5)	$ (27.7)

	Years Ended December 31,		
	2023	2022	2021
Components of Net Periodic Benefit Cost	($ in millions)		
Service cost	$ 0.7	$ 1.1	$ 1.3
Interest cost	1.8	1.1	1.0
Amortization of prior service cost	0.1	0.1	0.1
Recognized actuarial loss	0.5	1.5	2.1
Net periodic benefit cost	$ 3.1	$ 3.8	$ 4.5

	Years Ended December 31,		
	2023	2022	2021
Included in Pretax Other Comprehensive Income (Loss)	($ in millions)		
Liability adjustment	$ 1.7	$ (12.2)	$ (3.8)
Amortization of prior service costs and actuarial losses	(0.6)	(1.6)	(2.2)

The service cost component of net periodic postretirement benefit cost related to the employees of the operating segments are allocated to the operating segments based on their respective estimated census data.

Other Postretirement Benefits Plan Assumptions

Certain actuarial assumptions, such as discount rate, have a significant effect on the amounts reported for net periodic benefit cost and accrued benefit obligation amounts.

	December 31,		
Weighted-Average Assumptions	***2023***	***2022***	***2021***
Discount rate—periodic benefit cost	5.5 %	2.8 %	2.3 %
Discount rate—benefit obligation	5.2 %	5.5 %	2.8 %

The discount rate is based on a hypothetical yield curve represented by a series of annualized individual zero-coupon bond spot rates for maturities ranging from one-half to thirty years. The bonds used in the yield curve must have a rating of AA or better per Standard & Poor's, be non-callable, and have at least $250 million par outstanding. The yield curve is then applied to the projected benefit payments from the plan. Based on these bonds and the projected benefit payment streams, the single rate that produces the same yield as the matching bond portfolio is used as the discount rate.

We review external data and our own internal trends for healthcare costs to determine the healthcare cost for the postretirement benefit obligation. The assumed healthcare cost trend rates for pre-65 retirees were as follows:

	December 31,	
	2023	***2022***
Healthcare cost trend rate assumed for next year	7.0 %	7.0 %
Rate that the cost trend rate gradually declines to	4.5 %	4.5 %
Year that the rate reaches the ultimate rate	2033	2032

For post-65 retirees, we provide a fixed dollar benefit, which is not subject to escalation.

We expect to make payments of approximately $3 million for each of the next five years under the provisions of our other postretirement benefit plans.

NOTE 15. INCOME TAXES

	Years ended December 31,		
	2023	***2022***	***2021***
Components of Income (Loss) Before Taxes		*($ in millions)*	
U.S.	$ 456.7	$ 1,231.2	$ 977.3
Foreign	102.6	444.8	561.4
Income before taxes	$ 559.3	$ 1,676.0	$ 1,538.7
Components of Income Tax Provision (Benefit)			
Current:			
Federal	$ 96.2	$ 225.0	$ 139.6
State	19.4	31.1	24.5
Foreign	48.0	121.7	131.3
Total current	163.6	377.8	295.4
Deferred:			
Federal	(25.3)	(32.1)	39.1
State	(7.9)	(4.3)	6.2
Foreign	(23.1)	7.7	(98.7)
Total deferred	(56.3)	(28.7)	(53.4)
Income tax provision	$ 107.3	$ 349.1	$ 242.0

The following table accounts for the difference between the actual tax provision and the amounts obtained by applying the statutory U.S. federal income tax rate to the income (loss) before taxes.

Effective Tax Rate Reconciliation (Percent)	*Years ended December 31,* 2023	2022	2021
Statutory federal tax rate	21.0 %	21.0 %	21.0 %
State income taxes, net	2.7	2.3	1.9
Foreign rate differential	(1.8)	1.5	2.9
U.S. tax on foreign earnings	1.7	(0.8)	0.3
Salt depletion	(1.7)	(0.5)	(0.6)
Change in valuation allowance	2.0	0.4	(10.4)
Remeasurement of U.S. state deferred taxes	(0.2)	(0.8)	0.1
Change in tax contingencies	(0.5)	0.5	1.5
Share-based payments	(1.0)	(0.3)	(0.7)
Return to provision	(3.1)	(0.6)	(0.5)
U.S. federal tax credits	—	(0.1)	—
Legal entity liquidation	(0.5)	(2.0)	—
Other, net	0.6	0.2	0.2
Effective tax rate	19.2 %	20.8 %	15.7 %

The effective tax rate for 2023 included benefits associated with a legal entity liquidation, prior year tax positions, stock-based compensation, remeasurement of deferred taxes due to a decrease in our state effective tax rates and foreign rate changes, and from a change in tax contingencies, and an expense from a net increase in the valuation allowance related to deferred tax assets in foreign jurisdictions. These factors resulted in a net $29.4 million tax benefit. Excluding these items, the effective tax rate for 2023 of 24.4% was higher than the 21.0% U.S. federal statutory rate primarily due to state taxes, an increase in the valuation allowance related to losses in foreign jurisdictions and foreign income inclusions, partially offset by foreign rate differential and favorable permanent salt depletion deductions.

The effective tax rate for 2022 included benefits associated with a legal entity liquidation, prior year tax positions, stock-based compensation, and remeasurement of deferred taxes due to a decrease in our state effective tax rates, and expenses associated with a net increase in the valuation allowance related to state tax credits and a change in tax contingencies. These factors resulted in a net $60.2 million tax benefit. Excluding these items, the effective tax rate for 2022 of 24.4% was higher than the 21.0% U.S. federal statutory rate primarily due to state taxes, an increase in the valuation allowance related to losses in foreign jurisdictions and foreign income taxes, partially offset by foreign income exclusions and favorable permanent salt depletion deductions.

The effective tax rate for 2021 included benefits from a net decrease in the valuation allowance related to deferred tax assets in foreign jurisdictions, domestic tax credits, prior year tax positions, stock-based compensation, and expenses from remeasurement of deferred taxes due to an increase in our state effective tax rates and a change in tax contingencies. These factors resulted in a net $103.6 million tax benefit. Excluding these items, the effective tax rate for 2021 of 22.5% was higher than the 21.0% U.S. federal statutory rate primarily due to state taxes, foreign income inclusions and foreign rate differential, partially offset by a net decrease in the valuation allowance related to utilization of losses in foreign jurisdictions and favorable permanent salt depletion deductions.

Components of Deferred Tax Assets and Liabilities	December 31, 2023	December 31, 2022
	($ in millions)	
Deferred Tax Assets		
Pension and postretirement benefits	$ 42.4	$ 42.9
Environmental reserves	38.3	37.4
Asset retirement obligations	16.6	13.9
Accrued liabilities	46.1	47.4
Lease liabilities	88.1	91.4
Tax credits	47.3	37.4
Net operating losses (NOL)	54.1	23.2
Other miscellaneous items	3.0	2.7
Total deferred tax assets	335.9	296.3
Valuation allowance	(99.5)	(76.4)
Net deferred tax assets	236.4	219.9
Deferred Tax Liabilities		
Property, plant and equipment	439.5	481.7
Right-of-use lease assets	86.5	89.8
Intangible amortization	76.9	68.7
Inventory and prepaids	5.5	12.1
Taxes on unremitted earnings	16.8	12.0
Other miscellaneous items	—	2.4
Total deferred tax liabilities	625.2	666.7
Net deferred income tax liability	$ (388.8)	$ (446.8)

Realization of the net deferred tax assets, irrespective of indefinite-lived deferred tax liabilities, is dependent on future reversals of existing taxable temporary differences and adequate future taxable income, exclusive of reversing temporary differences and carryforwards. Although realization is not assured, we believe that it is more likely than not that the net deferred tax assets will be realized.

At December 31, 2023, we had deferred state tax assets of $14.9 million relating to state NOLs, which will expire in years 2024 through 2042, if not utilized.

At December 31, 2023, we had deferred state tax assets of $19.3 million relating to state tax credits, which will expire in years 2024 through 2038, if not utilized.

At December 31, 2023, we had foreign tax credits of $23.1 million, that will expire in years 2027 through 2032, if not utilized.

At December 31, 2023, we had NOLs of approximately $141.4 million (representing $39.1 million of deferred tax assets) in various foreign jurisdictions. Of these, $67.9 million (representing $16.9 million of deferred tax assets) expire in various years from 2024 to 2033. The remaining $73.5 million (representing $22.2 million of deferred tax assets) do not expire.

As of December 31, 2023, we had recorded a valuation allowance of $99.5 million, compared to $76.4 million as of December 31, 2022, and $70.1 million as of December 31, 2021. The increase of $23.1 million in 2023 is primarily due to increases in valuation allowances on foreign tax credits and foreign NOLs.

We continue to have net deferred tax assets in several jurisdictions which we expect to realize, assuming sufficient taxable income can be generated to utilize these deferred tax benefits, which is based on certain estimates and assumptions. If these estimates and related assumptions change in the future, we may be required to reduce the value of the deferred tax assets resulting in additional tax expense.

The activity of our deferred income tax valuation allowance was as follows:

	December 31,	
	2023	2022
Deferred Income Tax Valuation Allowance	($ in millions)	
Beginning balance	$ 76.4	$ 70.1
Increases to valuation allowances	23.6	14.6
Decreases to valuation allowances	(0.1)	(6.6)
Foreign currency translation adjustments	(0.4)	(1.7)
Ending balance	$ 99.5	$ 76.4

As of December 31, 2023, we had $50.3 million of gross unrecognized tax benefits, which would have a net $49.9 million impact on the effective tax rate, if recognized. As of December 31, 2022, we had $51.6 million of gross unrecognized tax benefits, which would have a net $50.6 million impact on the effective tax rate, if recognized. The change for both 2023 and 2022 primarily relates to additional gross unrecognized benefits for current and prior year tax positions, as well as decreases for prior year tax positions. The amounts of unrecognized tax benefits were as follows:

	December 31,	
	2023	2022
Unrecognized Tax Benefits	($ in millions)	
Beginning balance	$ 51.6	$ 43.4
Increase for current year tax positions	1.7	10.3
Increase for prior year tax positions	1.3	0.3
Decrease for prior year tax positions	(0.5)	(0.8)
Reduction due to lapse in statute of limitations	(5.1)	—
Foreign currency translation adjustments	1.3	(1.6)
Ending balance	$ 50.3	$ 51.6

We recognize interest and penalty expense related to unrecognized tax positions as a component of the income tax provision. As of December 31, 2023 and 2022, interest and penalties accrued were $1.9 million and $1.2 million, respectively. For 2023, 2022 and 2021, we recorded expense related to interest and penalties of $0.7 million, $0.7 million and $0.5 million, respectively.

As of December 31, 2023, we believe it is reasonably possible that our total amount of unrecognized tax benefits will decrease by approximately $36.9 million over the next twelve months. The anticipated reduction primarily relates to expected settlements with tax authorities and the expiration of federal, state and foreign statutes of limitation.

We operate globally and file income tax returns in numerous jurisdictions. Our tax returns are subject to examination by various federal, state and local tax authorities. Additionally, examinations are ongoing in various states and foreign jurisdictions. We believe we have adequately provided for all tax positions; however, amounts asserted by taxing authorities could be greater than our accrued position.

For our primary tax jurisdictions, the tax years that remain subject to examination are as follows:

	Tax Years
U.S. federal income tax	2020 - 2022
U.S. state income tax	2012 - 2022
Canadian federal income tax	2015 - 2022
Brazil	2015 - 2022
Germany	2015 - 2022
China	2014 - 2022
The Netherlands	2015 - 2022

NOTE 16. ACCRUED LIABILITIES

Included in accrued liabilities were the following:

	December 31, 2023	December 31, 2022
Accrued Liabilities	($ in millions)	
Accrued compensation and payroll taxes	$ 72.0	$ 111.9
Non-income tax-related accruals	52.5	51.4
Accrued interest	35.8	35.6
Legal and professional costs	27.0	41.6
Accrued employee benefits	63.5	64.6
Contract liabilities (current portion only)	34.5	41.1
Environmental (current portion only)	32.0	25.0
Asset retirement obligation (current portion only)	9.5	13.7
Restructuring reserves (current portion only)	22.6	13.6
Derivative contracts	31.9	42.5
Other	68.7	67.8
Accrued liabilities	$ 450.0	$ 508.8

NOTE 17. CONTRIBUTING EMPLOYEE OWNERSHIP PLAN

The Contributing Employee Ownership Plan (CEOP) is a defined contribution plan available to essentially all domestic employees. We provide a contribution to an individual retirement contribution account (Company Contribution) maintained with the CEOP equal to an amount between 5.0% and 7.5% of the employee's eligible compensation. Employees generally vest in the value of the Company Contribution according to a schedule based on service. Prior to February 2023, participants vested 25% after 2 years of service, and 25% each year thereafter, through year 5 of service. After February 2023, participants vest 50% after 2 years of service and 100% after 3 years of service.

We also match a percentage of our employee's CEOP contributions (Company Match), which are invested in the same investment allocation as the employee's contribution. Prior to February 2023, participants vested 25% after 2 years of service, and 25% each year thereafter, through year 5 of service. After February 2023, employees immediately vest in matching contributions.

Our contributions to the CEOP for 2023, 2022 and 2021, were as follows:

	Years ended December 31, 2023	2022	2021
	($ in millions)		
Company contribution	$ 36.8	$ 37.4	$ 35.4
Company match	14.5	14.4	14.2

NOTE 18. STOCK-BASED COMPENSATION

Stock-based compensation expense was allocated to the operating segments for the portion related to employees whose compensation would be included in cost of goods sold with the remainder recognized in corporate/other. There were no significant capitalized stock-based compensation costs. Stock-based compensation granted includes stock options, performance share awards, restricted stock awards and deferred directors' compensation. Stock-based compensation expense was as follows:

	Years ended December 31, 2023	2022	2021
Stock Compensation Expense	($ in millions)		
Stock-based compensation	$ 26.7	$ 25.6	$ 28.4
Mark-to-market adjustments	1.1	(2.5)	24.7
Total expense	$ 27.8	$ 23.1	$ 53.1

Stock Plans

Under the stock option and long-term incentive plans, options may be granted to purchase shares of our common stock at an exercise price not less than fair market value at the date of grant, and are exercisable for a period not exceeding ten years from that date. Stock options, restricted stock and performance shares typically vest over three years. We issue shares to settle stock options, restricted stock and share-based performance awards. In 2023, 2022 and 2021, long-term incentive awards included stock options, performance share awards and restricted stock. The stock option exercise price was set at the fair market value of common stock on the date of the grant, and the options have a ten-year term.

The fair value of each stock option granted, which typically vests ratably over three years, but not less than one year, was estimated on the date of grant, using the Black-Scholes option-pricing model with the following assumptions:

Grant Date Assumptions	***2023***	***2022***	***2021***
Dividend yield	1.32%	1.60%	2.76%
Risk-free interest rate	4.07%	1.93%	0.94%
Expected volatility	47%	48%	44%
Expected life (years)	7.0	7.0	6.0
Weighted-average grant fair value (per option)	$ 28.74	$ 21.18	$ 9.91
Weighted-average exercise price	$ 60.43	$ 49.71	$ 28.99
Stock options granted	564,124	752,100	1,154,700

Dividend yield was based on our current dividend yield as of the option grant date. Risk-free interest rate was based on zero coupon U.S. Treasury securities rates for the expected life of the options. Expected volatility was based on our historical stock price movements, as we believe that historical experience is the best available indicator of the expected volatility. Expected life of the option grant was based on historical exercise and cancellation patterns, as we believe that historical experience is the best estimate for future exercise patterns.

Stock option transactions were as follows:

				Exercisable	
Stock Option Transactions	***Shares***	***Option Price***	***Weighted-Average Option Price***	***Options***	***Weighted-Average Exercise Price***
Outstanding at January 1, 2023	5,438,720	13.14-65.77	$ 29.36	3,740,936	$ 26.50
Granted	564,124	49.42-60.55	60.43		
Exercised	(972,080)	13.14-50.08	26.06		
Canceled	(107,191)	23.28-60.55	44.79		
Outstanding at December 31, 2023	4,923,573	13.14-65.77	$ 33.23	3,654,274	$ 27.33

At December 31, 2023, the average exercise period for all outstanding and exercisable options was 70 months and 59 months, respectively. At December 31, 2023, the aggregate intrinsic value (the difference between the exercise price and market value) for outstanding options was $105.9 million, which includes exercisable options of $97.5 million. The total intrinsic value of options exercised during the years ended December 31, 2023, 2022 and 2021, was $29.7 million, $36.9 million and $73.1 million, respectively.

The total unrecognized compensation cost related to unvested stock options at December 31, 2023, was $15.5 million and was expected to be recognized over a weighted-average period of 1.3 years.

The following table provides certain information with respect to stock options exercisable at December 31, 2023:

Range of Exercise Prices	***Options Exercisable***	***Weighted-Average Exercise Price***	***Options Outstanding***	***Weighted-Average Exercise Price***
Under $27.00	1,586,954	$ 20.52	1,586,954	$ 20.52
$27.00 - $45.00	1,843,786	30.26	2,107,064	30.12
Over $45.00	223,534	51.53	1,229,555	54.98
	3,654,274		4,923,573	

At December 31, 2023, common shares reserved for issuance and available for grant or purchase under the following plans consisted of:

	Number of Shares	
Incentive Plans	***Reserved for Issuance***	***Available for Grant or Purchase***[(1)]
2003 Long Term Incentive Plan	29,834	—
2006 Long Term Incentive Plan	18,698	—
2009 Long Term Incentive Plan	94,984	—
2014 Long Term Incentive Plan	355,082	—
2016 Long Term Incentive Plan	1,066,818	—
2018 Long Term Incentive Plan	8,054,619	3,765,408
2021 Long Term Incentive Plan	2,750,000	2,582,262
Total under stock option plans	12,370,035	6,347,670

(1) All available to be issued as stock options, but includes a sub-limit for all types of stock awards of 2,595,246 shares.

	Number of Shares	
Director Plans	***Reserved for Issuance***	***Available for Grant or Purchase***
1997 Stock Plan for Non-employee Directors	368,778	106,697

Under the stock purchase plans, our non-employee directors may defer certain elements of their compensation into shares of our common stock based on fair market value of the shares at the time of deferral. Non-employee directors annually receive stock grants as a portion of their director compensation. Of the shares reserved under the stock purchase plans at December 31, 2023, 262,081 shares were committed.

Performance share awards are denominated in shares of our stock and are paid half in cash and half in stock. Payouts for performance share awards are based on two criteria: (1) 50% of the award is based on Olin's total shareholder returns (TSR) over the applicable three-year performance cycle in relation to the TSR over the same period among a portfolio of public companies which are selected in concert with outside compensation consultants and (2) 50% of the award is based on Olin's net income over the applicable three-year performance cycle in relation to the net income goal for such period as set by the Compensation Committee of Olin's Board of Directors. The expense associated with performance shares is recorded based on our estimate of our performance relative to the respective target. If an employee leaves the company before the end of the performance cycle, the performance shares may be prorated based on the number of months of the performance cycle worked and are settled in cash instead of half in cash and half in stock when the three-year performance cycle is completed. Granted shares reflects changes in assumptions associated with the expected achievement of the aforementioned criteria.

The fair value of each performance share award based on net income was estimated on the date of grant, using the current stock price. The fair value of each performance share award based on TSR was estimated on the date of grant, using a Monte Carlo simulation model with the following weighted average assumptions:

Grant Date Assumptions	***2023***	***2022***	***2021***
Risk-free interest rate	4.46%	1.74%	0.23%
Expected volatility of Olin common stock	52%	59%	55%
Expected average volatility of peer companies	42%	47%	50%
Average correlation coefficient of peer companies	0.51	0.51	0.50
Expected life (years)	3.0	3.0	3.0
Grant date fair value (TSR-based award)	$ 86.98	$ 64.13	$ 39.96
Grant date fair value (net income-based award)	60.55	49.71	28.99
Performance share awards granted	161,474	184,000	248,700

Risk-free interest rate was based on zero coupon U.S. Treasury securities rates for the expected life of the performance share awards. Expected volatility of Olin common stock and peer companies was based on historical stock price movements, as we believe that historical experience is the best available indicator of the expected volatility. The average correlation coefficient of peer companies was determined based on historical trends of Olin's common stock price compared to the peer companies.

Expected life of the performance share award grant was based on historical exercise and cancellation patterns, as we believe that historical experience is the best estimate of future exercise patterns.

Performance share transactions were as follows:

Performance Share Transactions	To Settle in Cash		To Settle in Shares	
	Shares	*Weighted-Average Fair Value per Share*	*Shares*	*Weighted-Average Fair Value per Share*
Outstanding at January 1, 2023	675,016	$ 52.90	388,808	$ 29.94
Granted	76,455	63.08	91,950	63.56
Paid/issued	(357,601)	52.90	(131,633)	17.33
Converted from shares to cash	5,397	37.49	(5,397)	37.49
Canceled	(3,605)	54.17	(3,876)	42.61
Outstanding at December 31, 2023	395,662	$ 54.18	339,852	$ 43.65
Total vested at December 31, 2023	309,835	$ 54.18	249,753	$ 40.37

The summary of the status of our unvested performance shares to be settled in cash were as follows:

Unvested Performance Shares	*Shares*	*Weighted-Average Fair Value per Share*
Unvested at January 1, 2023	125,750	$ 52.90
Granted	76,455	63.08
Vested	(112,773)	54.18
Canceled	(3,605)	54.17
Unvested at December 31, 2023	85,827	$ 54.18

At December 31, 2023, the liability recorded for performance shares to be settled in cash totaled $17.0 million. The total unrecognized compensation cost related to unvested performance shares at December 31, 2023, was $9.8 million and was expected to be recognized over a weighted-average period of 1.7 years.

NOTE 19. SHAREHOLDERS' EQUITY

On July 28, 2022, our Board of Directors authorized a share repurchase program for the purchase of shares of common stock at an aggregate price of up to $2.0 billion (the 2022 Repurchase Authorization). This program will terminate upon the purchase of $2.0 billion of common stock. On November 1, 2021, our Board of Directors authorized a share repurchase program for the purchase of shares of common stock at an aggregate price of up to $1.0 billion. This program terminated upon the purchase of $1.0 billion of our common stock during the third quarter of 2022. On April 26, 2018, our Board of Directors authorized a share repurchase program for the purchase of shares of common stock at an aggregate price of up to $500.0 million. This program terminated upon the purchase of $500.0 million of our common stock during the first quarter of 2022.

For the years ended December 31, 2023, 2022 and 2021, 13.3 million, 25.7 million and 4.7 million shares, respectively, of common stock have been repurchased and retired at a total value of $711.3 million, $1,350.7 million and $251.9 million, respectively. As of December 31, 2023, a cumulative total of 19.2 million shares were repurchased and retired at a total value of $1,003.0 million and $997.0 million of common stock remained authorized to be repurchased under the 2022 Repurchase Authorization program.

During 2023, 2022 and 2021, we issued 1.0 million, 1.1 million and 3.4 million shares, respectively, with a total value of $25.4 million, $25.7 million and $72.4 million, respectively, representing stock options exercised.

We have registered an undetermined amount of securities with the SEC, so that, from time-to-time, we may issue debt securities, preferred stock and/or common stock and associated warrants in the public market under that registration statement.

The following table represents the activity included in accumulated other comprehensive loss:

Accumulated Other Comprehensive Loss	*Foreign Currency Translation*	*Cash Flow Hedges*	*Pension and Postretirement Benefits*	*Total*
	($ in millions)			
Balance at January 1, 2021	$ 19.4	$ 21.4	$ (730.7)	$ (689.9)
Unrealized (losses) gains	(30.3)	182.0	249.7	401.4
Reclassification adjustments of (gains) losses into income	—	(180.1)	54.3	(125.8)
Tax provision	—	(0.5)	(73.2)	(73.7)
Net change	(30.3)	1.4	230.8	201.9
Balance at December 31, 2021	(10.9)	22.8	(499.9)	(488.0)
Unrealized (losses) gains	(27.7)	(15.6)	72.1	28.8
Reclassification adjustments of (gains) losses into income	—	(58.2)	35.5	(22.7)
Tax benefit (provision)	—	18.5	(32.5)	(14.0)
Net change	(27.7)	(55.3)	75.1	(7.9)
Balance at December 31, 2022	(38.6)	(32.5)	(424.8)	(495.9)
Unrealized losses	(1.1)	(53.6)	(18.1)	(72.8)
Reclassification adjustments of losses into income	—	72.5	0.2	72.7
Tax (provision) benefit	—	(4.8)	4.5	(0.3)
Net change	(1.1)	14.1	(13.4)	(0.4)
Balance at December 31, 2023	$ (39.7)	$ (18.4)	$ (438.2)	$ (496.3)

Net income (loss), interest expense and cost of goods sold included reclassification adjustments for realized gains and losses on derivative contracts from accumulated other comprehensive loss.

Net income (loss) and non-operating pension income included the amortization of prior service costs and actuarial losses from accumulated other comprehensive loss.

NOTE 20. SEGMENT INFORMATION

We define segment results as income (loss) before interest expense, interest income, other operating income (expense), non-operating pension income, other income and income taxes. We have three operating segments: Chlor Alkali Products and Vinyls, Epoxy and Winchester. The three operating segments reflect the organization used by our management for purposes of allocating resources and assessing performance. Chlorine and caustic soda used in our Epoxy segment is transferred at cost from the Chlor Alkali Products and Vinyls segment. Sales are attributed to geographic areas based on customer location.

Segment Detail	Years ended December 31, 2023	2022	2021
	($ in millions)		
Sales			
Chlor Alkali Products and Vinyls	$ 3,995.1	$ 5,085.0	$ 4,140.8
Epoxy	1,329.2	2,690.5	3,186.0
Winchester	1,508.7	1,600.7	1,583.8
Total sales	$ 6,833.0	$ 9,376.2	$ 8,910.6
Income before Taxes			
Chlor Alkali Products and Vinyls	$ 664.2	$ 1,181.3	$ 997.8
Epoxy	(31.0)	388.5	616.5
Winchester	255.6	372.9	412.1
Corporate/Other:			
Environmental expense	(23.7)	(23.2)	(14.0)
Other corporate and unallocated costs	(106.3)	(131.5)	(135.1)
Restructuring charges	(89.6)	(25.3)	(27.9)
Other operating income	42.9	16.3	1.4
Interest expense	(181.1)	(143.9)	(348.0)
Interest income	4.3	2.2	0.2
Non-operating pension income	24.0	38.7	35.7
Income before taxes	$ 559.3	$ 1,676.0	$ 1,538.7
Depreciation and Amortization Expense			
Chlor Alkali Products and Vinyls	$ 440.7	$ 482.2	$ 466.4
Epoxy	57.4	83.3	86.1
Winchester	27.2	24.6	23.3
Corporate/Other	8.1	8.7	6.7
Total depreciation and amortization expense	$ 533.4	$ 598.8	$ 582.5
Capital Spending			
Chlor Alkali Products and Vinyls	$ 161.1	$ 151.4	$ 130.2
Epoxy	15.2	27.2	31.0
Winchester	33.3	31.0	28.5
Corporate/Other	26.4	27.3	10.9
Total capital spending	$ 236.0	$ 236.9	$ 200.6

Segment assets include only those assets which are directly identifiable to an operating segment. Assets of the corporate/other segment include primarily such items as cash and cash equivalents, deferred taxes and other assets.

Assets by Segment	December 31, 2023	2022
	($ in millions)	
Chlor Alkali Products and Vinyls	$ 5,650.2	$ 5,782.2
Epoxy	979.3	1,201.9
Winchester	683.6	595.0
Corporate/Other	400.1	465.1
Total assets	$ 7,713.2	$ 8,044.2

Property, plant and equipment is attributed to geographic areas based on the asset location, and sales are attributed to geographic areas based on the customer location.

Property, Plant and Equipment by Geography	December 31, 2023	2022
	($ in millions)	
United States	$ 2,302.7	$ 2,434.4
Foreign	216.9	239.7
Total property, plant and equipment	$ 2,519.6	$ 2,674.1

Sales by Geography	Years ended December 31, 2023	2022	2021
	($ in millions)		
Chlor Alkali Products and Vinyls			
United States	$ 2,700.0	$ 3,400.0	$ 2,839.1
Europe	207.9	331.9	203.5
Other foreign	1,087.2	1,353.1	1,098.2
Total Chlor Alkali Products and Vinyls	3,995.1	5,085.0	4,140.8
Epoxy			
United States	562.8	855.1	926.7
Europe	338.5	1,181.8	1,457.9
Other foreign	427.9	653.6	801.4
Total Epoxy	1,329.2	2,690.5	3,186.0
Winchester			
United States	1,336.6	1,467.0	1,502.2
Europe	57.3	34.1	19.4
Other foreign	114.8	99.6	62.2
Total Winchester	1,508.7	1,600.7	1,583.8
Total			
United States	4,599.4	5,722.1	5,268.0
Europe	603.7	1,547.8	1,680.8
Other foreign	1,629.9	2,106.3	1,961.8
Total sales	$ 6,833.0	$ 9,376.2	$ 8,910.6

Sales by Product Line	***Years ended December 31,*** 2023	2022	2021
	($ in millions)		
Chlor Alkali Products and Vinyls			
Caustic soda	$ 1,790.0	$ 2,389.1	$ 1,869.3
Chlorine, chlorine derivatives and other products	2,205.1	2,695.9	2,271.5
Total Chlor Alkali Products and Vinyls	3,995.1	5,085.0	4,140.8
Epoxy			
Aromatics and allylics	525.1	1,338.6	1,450.5
Epoxy resins	804.1	1,351.9	1,735.5
Total Epoxy	1,329.2	2,690.5	3,186.0
Winchester			
Commercial	806.5	1,079.1	1,104.1
Military and law enforcement	702.2	521.6	479.7
Total Winchester	1,508.7	1,600.7	1,583.8
Total sales	$ 6,833.0	$ 9,376.2	$ 8,910.6

NOTE 21. ENVIRONMENTAL

As is common in our industry, we are subject to environmental laws and regulations related to the use, storage, handling, generation, transportation, emission, discharge, disposal and remediation of, and exposure to, hazardous and non-hazardous substances and wastes in all of the countries in which we do business.

The establishment and implementation of national, state or provincial and local standards to regulate air, water and land quality affect substantially all of our manufacturing locations around the world. Laws providing for regulation of the manufacture, transportation, use and disposal of hazardous and toxic substances, and remediation of contaminated sites, have imposed additional regulatory requirements on industry, particularly the chemicals industry. In addition, implementation of environmental laws has required and will continue to require new capital expenditures and will increase plant operating costs. We employ waste minimization and pollution prevention programs at our manufacturing sites.

We are party to various government and private environmental actions associated with past manufacturing facilities and former waste disposal sites. Associated costs of investigatory and remedial activities are provided for in accordance with generally accepted accounting principles governing probability and the ability to reasonably estimate future costs. Our ability to estimate future costs depends on whether our investigatory and remedial activities are in preliminary or advanced stages. With respect to unasserted claims, we accrue liabilities for costs that, in our experience, we expect to incur to protect our interests against those unasserted claims. Our accrued liabilities for unasserted claims amounted to $11.6 million at December 31, 2023. With respect to asserted claims, we accrue liabilities based on remedial investigation, feasibility study, remedial action and operation, maintenance and monitoring (OM&M) expenses that, in our experience, we expect to incur in connection with the asserted claims. Required site OM&M expenses are estimated and accrued in their entirety for required periods not exceeding 30 years, which reasonably approximates the typical duration of long-term site OM&M.

Our liabilities for future environmental expenditures were as follows:

Environmental Liabilities	***December 31,*** 2023	2022
	($ in millions)	
Beginning balance	$ 146.6	$ 147.3
Charges to income	30.1	24.2
Remedial and investigatory spending	(25.9)	(24.6)
Other	2.8	(0.3)
Ending balance	$ 153.6	$ 146.6

At both December 31, 2023 and 2022, our consolidated balance sheets included environmental liabilities of $121.6 million, which were classified as other noncurrent liabilities. Our environmental liability amounts do not take into account any discounting of future expenditures or any consideration of insurance recoveries or advances in technology. These liabilities are reassessed periodically to determine if environmental circumstances have changed and/or remediation efforts and our estimate of related costs have changed. As a result of these reassessments, future charges to income may be made for additional liabilities. Of the $153.6 million included on our consolidated balance sheet at December 31, 2023, for future environmental expenditures, we currently expect to utilize $59.8 million of the reserve for future environmental expenditures over the next 5 years, $51.2 million for expenditures 6 to 10 years in the future, and $42.6 million for expenditures beyond 10 years in the future.

Our total estimated environmental liability at December 31, 2023, was attributable to 58 sites, 14 of which were United States Environmental Protection Agency National Priority List sites. Nine sites accounted for 83% of our environmental liability and, of the remaining 49 sites, no one site accounted for more than 2% of our environmental liability. At seven of the nine sites, part of the site is in the long-term OM&M stage. At seven of the nine sites, a remedial action plan is being developed for part of the site. At six of the nine sites, a remedial design is being developed at part of the site and at four of the nine sites, part of the site is subject to a remedial investigation. All nine sites are either associated with past manufacturing operations or former waste disposal sites. None of the nine largest sites represents more than 25% of the liabilities reserved on our consolidated balance sheet at December 31, 2023, for future environmental expenditures.

Environmental provisions charged to income, which are included in cost of goods sold, were as follows:

	Years ended December 31,		
	2023	***2022***	***2021***
Environmental Expense	*($ in millions)*		
Provisions charged to income	$ 30.1	$ 24.2	$ 16.2
Insurance recoveries[1]	(6.4)	(1.0)	(2.2)
Environmental expense	$ 23.7	$ 23.2	$ 14.0

(1) Insurance recoveries for costs incurred and expensed in prior periods.

These charges relate primarily to remedial and investigatory activities associated with past manufacturing operations and former waste disposal sites and may be material to operating results in future years.

Annual environmental-related cash outlays for site investigation and remediation are expected to range between approximately $25 million to $35 million over the next several years, which are expected to be charged against reserves recorded on our consolidated balance sheet. While we do not anticipate a material increase in the projected annual level of our environmental-related cash outlays for site investigation and remediation, there is always the possibility that such an increase may occur in the future in view of the uncertainties associated with environmental exposures. Environmental exposures are difficult to assess for numerous reasons, including the identification of new sites, developments at sites resulting from investigatory studies, advances in technology, changes in environmental laws and regulations and their application, changes in regulatory authorities, the scarcity of reliable data pertaining to identified sites, the difficulty in assessing the involvement and financial capability of other Potentially Responsible Parties (PRPs), our ability to obtain contributions from other parties and the lengthy time periods over which site remediation occurs. It is possible that some of these matters (the outcomes of which are subject to various uncertainties) may be resolved unfavorably to us, which could materially adversely affect our financial position or results of operations. At December 31, 2023, we estimate that it is reasonably possible that we may have additional contingent environmental liabilities of $80 million in addition to the amounts for which we have already recorded as a reserve.

NOTE 22. LEASES

Our lease commitments are primarily for railcars, but also include logistics, manufacturing, storage, real estate and information technology assets. Our leases have remaining lease terms of up to 91 years (14 years excluding land leases), some of which may include options to extend the leases for up to five years, and some of which may include options to terminate the leases within one year.

The amounts for leases included in our consolidated balance sheets include:

	Balance Sheet Location:	December 31, 2023	December 31, 2022
		($ in millions)	
Lease Assets			
Operating	Operating lease assets, net	$ 344.7	$ 356.0
Finance	Property, plant and equipment, net[1]	—	2.4
Total lease assets		$ 344.7	$ 358.4
Lease Liabilities			
Current			
Operating	Current operating lease liabilities	$ 69.3	$ 71.8
Finance	Current installments of long-term debt	—	1.0
Long-term			
Operating	Operating lease liabilities	283.1	292.5
Finance	Long-term debt	—	0.9
Total lease liabilities		$ 352.4	$ 366.2

(1) As of December 31, 2022, assets recorded under finance leases were $7.6 million and accumulated depreciation associated with finance leases was $5.2 million.

The components of lease expense are recorded to cost of goods sold and selling and administrative expenses in the consolidated statement of operations, excluding interest on finance lease liabilities which is recorded to interest expense. The components of lease expense were as follows:

Lease Expense	Years Ended December 31, 2023	2022	2021
		($ in millions)	
Operating lease expense	$ 88.4	$ 93.4	$ 97.1
Variable and short-term lease expense	24.6	32.5	28.7
Finance lease expense:			
Depreciation of leased assets	0.5	1.0	1.1
Interest on lease liabilities	—	0.1	0.1
Total lease expense	$ 113.5	$ 127.0	$ 127.0

Future maturities of operating lease liabilities as of December 31, 2023, are summarized below:

Future Lease Maturities	*Operating Leases*
	($ in millions)
2024	$ 80.9
2025	70.8
2026	55.0
2027	44.0
2028	37.1
Thereafter	132.6
Total lease payments	420.4
Less: Imputed interest[1]	(68.0)
Present value of lease liabilities	$ 352.4

(1) Calculated using the discount rate for each lease.

Other information related to leases was as follows:

	Years Ended December 31,		
	2023	2022	2021
Supplemental Cash Flows Information		($ in millions)	
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows from operating leases	$ 88.8	$ 93.1	$ 97.4
Operating cash flows from finance leases	—	0.1	0.1
Financing cash flows from finance leases	1.9	1.1	1.1
Non-cash increase in lease assets and lease liabilities:			
Operating leases	$ 71.1	$ 71.8	$ 56.7
Finance leases	—	—	0.1

	December 31,	
	2023	2022
Weighted-Average Remaining Lease Term		
Operating leases	8.9 years	9.1 years
Finance leases	—	1.6 years
Weighted-Average Discount Rate		
Operating leases	4.0 %	3.4 %
Finance leases	— %	3.6 %

As of December 31, 2023, we have additional operating leases that have not yet commenced of approximately $1.5 million which are expected to commence during 2024 with lease terms between 2 years and 3 years.

NOTE 23. COMMITMENTS AND CONTINGENCIES

The following table summarizes our contractual commitments under purchase contracts as of December 31, 2023:

Future Contractual Purchase Commitments	Purchase Commitments ($ in millions)
2024	$ 564.4
2025	564.8
2026	381.1
2027	370.8
2028	367.6
Thereafter	2,842.5
Total purchase commitments	$ 5,091.2

The above purchase commitments include raw material, capital expenditure, long-term energy supply contracts and utility purchasing commitments utilized in our normal course of business for our projected needs.

Legal Matters

Olin, K.A. Steel Chemicals (a wholly owned subsidiary of Olin) and other caustic soda producers were named as defendants in six purported class action civil lawsuits filed March 22, 25 and 26, 2019 and April 12, 2019, in the U.S. District Court for the Western District of New York. Those cases were consolidated on May 22, 2019; the claims in the consolidated "Direct Purchaser" lawsuit, as modified, are on behalf of the respective named plaintiffs and a putative class comprised of all persons and entities who purchased certain types of caustic soda in the U.S. directly from one or more of the defendants, their parents, predecessors, subsidiaries or affiliates at any time on or after October 1, 2015 through December 31, 2018. Olin, K.A. Steel Chemicals and other caustic soda producers were also named as defendants in two purported class action civil lawsuits filed July 25 and 29, 2019 in the U.S. District Court for the Western District of New York on behalf of the respective named plaintiffs and a putative class comprised of all persons and entities who purchased caustic soda in the U.S. indirectly from distributors at any time on or after October 1, 2015. Those cases were consolidated and a consolidated, amended complaint in the "Indirect Purchaser" lawsuit was filed on August 23, 2021. The other current defendants in the Direct Purchaser and

Indirect Purchaser lawsuits are Occidental Chemical Corporation d/b/a OxyChem, Westlake Chemical Corporation, Shin-Etsu Chemical Co., Ltd., and Formosa Plastics Corporation, U.S.A. The Direct Purchaser and Indirect Purchaser lawsuits allege the defendants conspired to fix, raise, maintain and stabilize the price of caustic soda, restrict domestic (U.S.) supply of caustic soda and allocate caustic soda customers. Plaintiffs seek damages and injunctive relief. Westlake Chemical Corporation, Shin-Etsu Chemical Co., Ltd., and Formosa Plastics Corporation, U.S.A. all entered settlement agreements in the Direct Purchaser lawsuit, and Shin-Etsu Chemical Co., Ltd also entered a settlement agreement in the Indirect Purchaser lawsuit. All of the settlements are pending court approval. On December 28, 2023, the court denied the plaintiffs' motion for class certification in the Direct Purchaser lawsuit, and the plaintiffs are seeking an interlocutory appeal of the court's ruling.

Olin, K.A. Steel Chemical, Olin Canada ULC, 3229897 Nova Scotia Co. (wholly owned subsidiaries of Olin) and other alleged caustic soda producers were named as defendants in a proposed class action civil lawsuit filed on October 7, 2020 in the Quebec Superior Court (Province of Quebec) on behalf of the respective named plaintiff and a putative class comprised of all Canadian persons and entities who, between October 1, 2015 and the date of the eventual class action certification, directly or indirectly purchased caustic soda or products containing caustic soda, produced by one or more of the defendants. Olin, K.A. Steel Chemical, Olin Canada ULC, 3229897 Nova Scotia Co. and other alleged caustic soda producers were also named as defendants in a proposed class action civil lawsuit filed November 13, 2020 in the Federal Court of Canada on behalf of the respective named plaintiff and a putative class comprised of all legal persons in Canada who, at any time on or after October 1, 2015 to the present, directly or indirectly purchased caustic soda. The other defendants named in the two Canadian lawsuits are Occidental Petroleum Corporation, Occidental Chemical Corporation, Oxy Canada Sales, Inc., Westlake Chemical Corporation, Axiall Canada, Inc., Shin-Etsu Chemical Co., Ltd., Shintech Incorporated, Formosa Plastics Corporation, and Formosa Plastics Corporation, U.S.A. The lawsuits allege the defendants conspired to fix, raise, maintain control, and stabilize the price of caustic soda, divide and allocate markets, sales, customers and territories, fix, maintain, control, prevent, restrict, lessen or eliminate production and supply of caustic soda, and agree to idle capacity of production and/or refrain from increasing their production capacity. Plaintiffs seek damages, including punitive damages.

We believe we have meritorious legal positions and will continue to represent our interests vigorously in the above matters. Any losses related to these matters are not currently estimable because of unresolved questions of fact and law, but if resolved unfavorably to Olin, could have a material adverse effect on our financial position, cash flows or results of operations.

We, and our subsidiaries, are defendants in various other legal actions (including proceedings based on alleged exposures to asbestos) incidental to our past and current business activities. At December 31, 2023 and 2022, our consolidated balance sheets included accrued liabilities for these other legal actions of $14.2 million and $14.4 million, respectively. These liabilities do not include costs associated with legal representation. Based on our analysis, and considering the inherent uncertainties associated with litigation, we do not believe that it is reasonably possible that these other legal actions will materially adversely affect our financial position, cash flows or results of operations.

During the ordinary course of our business, contingencies arise resulting from an existing condition, situation or set of circumstances involving an uncertainty as to the realization of a possible gain contingency. In certain instances, such as environmental projects, we are responsible for managing the cleanup and remediation of an environmental site. There exists the possibility of recovering a portion of these costs from other parties. We account for gain contingencies in accordance with the provisions of ASC 450 "Contingencies" and, therefore, do not record gain contingencies and recognize income until it is earned and realizable.

NOTE 24. DERIVATIVE FINANCIAL INSTRUMENTS

We are exposed to market risk in the normal course of our business operations due to our purchases of certain commodities, our ongoing investing and financing activities and our operations that use foreign currencies. The risk of loss can be assessed from the perspective of adverse changes in fair values, cash flows and future earnings. We have established policies and procedures governing our management of market risks and the use of financial instruments to manage exposure to such risks. ASC 815 "Derivatives and Hedging" (ASC 815) requires an entity to recognize all derivatives as either assets or liabilities in the consolidated balance sheets and measure those instruments at fair value. In accordance with ASC 815, we designate derivative contracts as cash flow hedges of forecasted purchases of commodities and forecasted interest payments related to variable-rate borrowings and designate certain interest rate swaps as fair value hedges of fixed-rate borrowings. We do not enter into any derivative instruments for trading or speculative purposes.

Energy costs, including electricity and natural gas, and certain raw materials used in our production processes are subject to price volatility. Depending on market conditions, we may enter into futures contracts, forward contracts, commodity swaps and put and call option contracts in order to reduce the impact of commodity price fluctuations. The majority of our commodity derivatives expire within one year.

We actively manage currency exposures that are associated with net monetary asset positions, currency purchases and sales commitments denominated in foreign currencies and foreign currency denominated assets and liabilities created in the normal course of business. We enter into forward sales and purchase contracts to manage currency risk to offset our net exposures, by currency, related to the foreign currency denominated monetary assets and liabilities of our operations. All of the currency derivatives expire within one year and are for USD equivalents. The counterparties to the forward contracts are large financial institutions; however, the risk of loss to us in the event of nonperformance by a counterparty could impact our financial position or results of operations. We had the following notional amounts of outstanding forward contracts to buy and sell foreign currency:

	December 31,	
	2023	2022
Notional Value - Foreign Currency	($ in millions)	
Buy	$ 21.0	$ 275.8
Sell	140.2	110.7

Cash Flow Hedges

For derivative instruments that are designated and qualify as a cash flow hedge, the change in fair value of the derivative is recognized as a component of other comprehensive income (loss) until the hedged item is recognized in earnings.

We had the following notional amounts of outstanding commodity contracts that were entered into to hedge forecasted purchases:

	December 31,	
	2023	2022
Notional Value - Commodity	($ in millions)	
Natural gas	$ 63.2	$ 107.6
Ethane	26.4	46.0
Metals	101.4	107.6
Total notional	$ 191.0	$ 261.2

As of December 31, 2023, the counterparties to these commodity contracts were Wells Fargo Bank, N.A., Citibank, N.A., JPMorgan Chase Bank, National Association, Toronto Dominion Bank and Bank of America Corporation, all of which are major financial institutions.

We use cash flow hedges for certain raw material and energy costs such as copper, zinc, lead, ethane, electricity and natural gas to provide a measure of stability in managing our exposure to price fluctuations associated with forecasted purchases of raw materials and energy used in our manufacturing process. At December 31, 2023, we had open derivative contract positions through 2028. If all open futures contracts had been settled on December 31, 2023, we would have recognized a pretax loss of $24.6 million.

If commodity prices were to remain at December 31, 2023 levels, approximately $20.8 million of deferred losses, net of tax, would be reclassified into earnings during the next twelve months. The actual effect on earnings will be dependent on actual commodity prices when the forecasted transactions occur.

Fair Value Hedges

We use interest rate swaps as a means of managing interest expense and floating interest rate exposure to optimal levels. For derivative instruments that are designated and qualify as a fair value hedge, the gain or loss on the derivative as well as the offsetting loss or gain on the hedged item attributable to the hedged risk are recognized in current earnings. We include the gain or loss on the hedged items (fixed-rate borrowings) in the same line item, interest expense, as the offsetting loss or gain on the related interest rate swaps. There were no outstanding interest rate swaps at December 31, 2023 and 2022.

In 2021, we redeemed the 2025 Notes which resulted in recognition of the outstanding deferred swap loss. For the year ended December 31, 2021, $1.8 million was recorded to interest expense on the accompanying consolidated statements of operations related to these swap agreements.

Financial Statement Impacts

We present our derivative assets and liabilities in our consolidated balance sheets on a net basis whenever we have a legally enforceable master netting agreement with the counterparty to our derivative contracts. We use these agreements to manage and substantially reduce our potential counterparty credit risk.

The following table summarizes the location and fair value of the derivative instruments on our consolidated balance sheets:

	Balance Sheet Location	December 31, 2023	December 31, 2022
		($ in millions)	
Current Assets			
Commodity contracts	Other current assets	$ 2.1	$ 1.5
Foreign currency contracts	Other current assets	—	0.3
Noncurrent Assets			
Commodity contracts	Other assets	3.2	4.0
Total derivative assets(1)		$ 5.3	$ 5.8
Current Liabilities			
Commodity contracts	Accrued liabilities	$ 29.4	$ 41.6
Foreign currency contracts	Accrued liabilities	2.5	0.9
Noncurrent Liabilities			
Commodity contracts	Other liabilities	0.5	7.4
Total derivative liabilities(1)		$ 32.4	$ 49.9

(1) Does not include the impact of cash collateral received from or provided to counterparties.

The following table summarizes the effects of derivative instruments on our consolidated statements of operations:

	Location of Gain (Loss)	Amount of Gain (Loss) for the Years Ended December 31, 2023	2022	2021
		($ in millions)		
Cash Flow Hedges				
Commodity contracts	Other comprehensive (loss) income	$ (53.6)	$ (15.6)	$ 182.0
Commodity contracts	Cost of goods sold	(72.5)	58.2	180.1
Fair Value Hedges				
Interest rate contracts	Interest expense	—	—	(1.8)
Not Designated as Hedging Instruments				
Commodity contracts	Cost of goods sold	(0.6)	0.5	—
Foreign exchange contracts	Selling and administrative	(15.1)	(27.8)	(22.0)

Fair Value Measurements

Commodity contract financial instruments were valued primarily based on prices and other relevant information observable in market transactions involving identical or comparable assets or liabilities including both forward and spot prices for commodities. All commodity financial instruments were valued as a Level 2 under the fair value measurements hierarchy.

Foreign currency contract financial instruments were valued primarily based on relevant information observable in market transactions involving identical or comparable assets or liabilities including both forward and spot prices for currencies. All foreign currency contract financial instruments were valued as a Level 2 under the fair value measurements hierarchy.

Credit Risk and Collateral

By using derivative instruments, we are exposed to credit and market risk. If a counterparty fails to fulfill its performance obligations under a derivative contract, our credit risk will equal the fair value gain in a derivative. Generally, when the fair value of a derivative contract is positive, this indicates that the counterparty owes us, thus creating a repayment risk for us. When the fair value of a derivative contract is negative, we owe the counterparty and, therefore, assume no repayment risk. We minimize the credit (or repayment) risk in derivative instruments by entering into transactions with high-quality counterparties. We monitor our positions and the credit ratings of our counterparties, and we do not anticipate non-performance by the counterparties.

Based on the agreements with our various counterparties, cash collateral is required to be provided when the net fair value of the derivatives, with the counterparty, exceeds a specific threshold. If the threshold is exceeded, cash is either provided by the counterparty to us if the value of the derivatives is our asset, or cash is provided by us to the counterparty if the value of the derivatives is our liability. As of December 31, 2023 and 2022, this threshold was not exceeded. In all instances where we are party to a master netting agreement, we offset the receivable or payable recognized upon payment of cash collateral against the fair value amounts recognized for derivative instruments that have also been offset under such master netting agreements.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not applicable.

Item 9A. CONTROLS AND PROCEDURES

Our chief executive officer and our chief financial officer evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2023. Based on that evaluation, our chief executive officer and chief financial officer have concluded that, as of such date, our disclosure controls and procedures were effective to ensure that information Olin is required to disclose in the reports that it files or submits with the SEC under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the Commission’s rules and forms, and to ensure that information we are required to disclose in such reports is accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate to allow timely decisions regarding required disclosure.

There have been no changes in our internal control over financial reporting that occurred during the quarter ended December 31, 2023, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management’s report on internal control over financial reporting and the related report of Olin’s independent registered public accounting firm, KPMG LLP, are included in Item 8—"Consolidated Financial Statements and Supplementary Data.”

Item 9B. OTHER INFORMATION

During the three months ended December 31, 2023, no director or officer of Olin adopted, terminated or modified a ‘Rule 10b5-1 trading arrangement’ or ‘non-Rule 10b5-1 trading arrangement,’ as each term is defined in Item 408(a) of Regulation S-K.

Item 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

We incorporate the biographical information relating to our Directors under the heading ITEM 1—"PROPOSAL FOR THE ELECTION OF DIRECTORS” in our Proxy Statement relating to our 2024 Annual Meeting of Shareholders (the "Proxy Statement”) by reference in this Report. We incorporate the biographical information regarding executive officers under the heading "EXECUTIVE OFFICERS” in our Proxy Statement by reference in this report.

The information with respect to our audit committee, including the audit committee financial expert, is incorporated by reference in this Report to the information contained in the paragraph entitled "CORPORATE GOVERNANCE MATTERS—What Are our Board Committees?” in our Proxy Statement. We incorporate by reference in this Report information regarding procedures for shareholders to nominate a director for election, in the Proxy Statement under the headings "MISCELLANEOUS—How can I directly nominate a director for election to the board at the 2025 annual meeting?” and "CORPORATE GOVERNANCE MATTERS—What Is Olin’s Director Nomination Process?”.

We have adopted a code of business conduct and ethics for directors, officers and employees, known as the Code of Conduct. The Code of Conduct is available in the About, Our Values section of our website at www.olin.com. Olin intends to satisfy disclosure requirements under Item 5.05 of Form 8-K regarding an amendment to, or waiver from, any provision of the Code of Conduct with respect to its executive officers or directors by posting such amendment or waiver on its website.

Item 11. EXECUTIVE COMPENSATION

The information in the Proxy Statement under the heading "CORPORATE GOVERNANCE MATTERS—Compensation Committee Interlocks and Insider Participation," and the information under the heading "COMPENSATION DISCUSSION AND ANALYSIS" through the information under the heading "COMPENSATION COMMITTEE REPORT," are incorporated by reference in this Report.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

We incorporate the information concerning holdings of our common stock by certain beneficial owners contained under the heading "CERTAIN BENEFICIAL OWNERS" in our Proxy Statement, and the information concerning beneficial ownership of our common stock by our directors and officers under the heading "SECURITY OWNERSHIP OF DIRECTORS AND OFFICERS" in our Proxy Statement by reference in this Report.

Equity Compensation Plan Information

	(a)	*(b)*	*(c)*
Plan Category	***Number of securities to be issued upon exercise of outstanding options, warrants and rights[(1)]***	***Weighted-average exercise price of outstanding options, warrants and rights***	***Number of securities remaining available for future issuance under equity compensation plans excluding securities reflected in column (a)[(1)]***
Equity compensation plans approved by security holders [(2)]	6,284,447 (3)	$ 32.52 (3)	6,454,367
Equity compensation plans not approved by security holders	N/A	N/A	N/A
Total	6,284,447	$ 32.52 (3)	6,454,367

(1) Number of shares is subject to adjustment for changes in capitalization for stock splits and stock dividends and similar events.

(2) Consists of the 2003 Long Term Incentive Plan, the 2006 Long Term Incentive Plan, the 2009 Long Term Incentive Plan, the 2014 Long Term Incentive Plan, the 2016 Long Term Incentive Plan, the 2018 Long Term Incentive Plan, the 2021 Long Term Incentive Plan and the 1997 Stock Plan for Non-employee Directors.

(3) Includes:

- 4,923,573 shares issuable upon exercise of options with a weighted-average exercise price of $33.23, and a weighted-average remaining term of 5.8 years,
- 29,800 shares issuable under restricted stock unit grants, with a weighted-average remaining term of 1.1 years,
- 1,068,992 shares issuable in connection with outstanding performance share awards, with a weighted-average term of 1.0 years remaining in the performance measurement period, and
- 262,082 shares under the 1997 Stock Plan for Non-employee Directors which represent stock grants for retainers, other board and committee fees and dividends on deferred stock under the plan.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

We incorporate the information under the headings "CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS" and "CORPORATE GOVERNANCE MATTERS—Which Board Members Are Independent?" in our Proxy Statement by reference in this Report.

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Our independent registered public accounting firm is KPMG LLP, St. Louis, MO, Auditor Firm ID: 185.

We incorporate the information concerning the accounting fees and services of our independent registered public accounting firm, KPMG LLP, under the heading ITEM 3—"PROPOSAL TO RATIFY APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM" in our Proxy Statement by reference in this Report.

PART IV

Item 15. EXHIBITS AND CONSOLIDATED FINANCIAL STATEMENT SCHEDULES

(a) 1. **Consolidated Financial Statements**

Consolidated financial statements of the registrant are included in Item 8 above.

2. **Financial Statement Schedules**

Schedules not included herein are omitted because they are inapplicable or not required or because the required information is given in the consolidated financial statements and notes thereto.

3. **Exhibits**

The following exhibits are filed with this Annual Report on Form 10-K, unless incorporated by reference. We are party to a number of other instruments defining the rights of holders of long-term debt. No such instrument authorizes an amount of securities in excess of 10% of the total assets of Olin and its subsidiaries on a consolidated basis. Olin agrees to furnish a copy of each instrument to the Commission upon request.

Exhibit	Exhibit Description
2	Merger Agreement dated as of March 26, 2015, among The Dow Chemical Company, Blue Cube Spinco Inc., Olin Corporation and Blue Cube Acquisition Corp.—Exhibit 2.1 to Olin's Form 8-K filed March 27, 2015*
3.1	Amended and Restated Articles of Incorporation of Olin Corporation as amended effective April 24, 2020—Exhibit 3.1 to Olin's Form 8-K filed April 28, 2020*
3.2	Bylaws of Olin Corporation as amended effective June 5, 2023—Exhibit 3.1 to Olin's Form 8-K filed June 5, 2023*
4.1	Description of Olin Corporation Securities registered under Section 12 of the Exchange Act
4.2	Trust Indenture effective October 1, 2010 between The Industrial Development Authority of Washington County and U.S. Bank National Association, as trustee—Exhibit 4.1 to Olin's Form 8-K filed October 20, 2010*
4.3	Loan Agreement effective October 1, 2010 between The Industrial Development Authority of Washington County and Olin Corporation—Exhibit 4.2 to Olin's Form 8-K filed October 20, 2010*
4.4	Bond Purchase Agreement dated October 14, 2010 between The Industrial Development Authority of Washington County, Olin Corporation and PNC Bank, National Association, as administrative agent—Exhibit 4.3 to Olin's Form 8-K filed October 20, 2010*
4.5	Trust Indenture effective December 1, 2010 between Mississippi Business Finance Corporation and U.S. Bank National Association—Exhibit 4.1 to Olin's Form 8-K filed December 10, 2010*
4.6	Third Supplemental Indenture dated as of August 22, 2012 between Olin Corporation and U.S. Bank National Association—Exhibit 4.1 to Olin's Form 8-K filed August 22, 2012*
4.7	Fourth Supplemental Indenture dated as of March 9, 2017 between Olin Corporation and U.S. Bank National Association—Exhibit 4.3 to Olin's Form 8-K filed March 9, 2017*
4.8	Fifth Supplemental Indenture dated January 16, 2018 between Olin Corporation and U.S. Bank National Association, as trustee, governing the Senior Notes—Exhibit 4.1 to Olin's Form 8-K filed January 19, 2018*
4.9	Sixth Supplemental Indenture dated July 16, 2019 between Olin Corporation and U.S. Bank National Association, as trustee, governing the Senior Notes—Exhibit 4.1 to Olin's Form 8-K filed July 16, 2019*
4.10	Seventh Supplemental Indenture dated September 30, 2020 between Olin Corporation and U. S. Bank National Association, as trustee, governing the Senior Notes—Exhibit 4.1 to Olin's Form 10-Q filed November 5, 2020*
4.11	Loan Agreement effective December 1, 2010 between Mississippi Business Finance Corporation and Olin Corporation—Exhibit 4.2 to Olin's Form 8-K filed December 10, 2010*
4.12	Bond Purchase Agreement dated December 9, 2010 between Mississippi Business Finance Corporation, Olin Corporation and PNC Bank, National Association, as administrative agent—Exhibit 4.3 to Olin's Form 8-K filed December 10, 2010*
4.13	Amended and Restated Credit and Funding Agreement dated December 9, 2010 between Olin Corporation, as borrower; PNC Bank, National Association, as administrative agent; PNC Capital Markets LLC, as lead arranger; and the Lenders party thereto—Exhibit 4.4 to Olin's Form 8-K filed December 10, 2010*
4.14	First Amendment dated December 27, 2010 to the Amended and Restated Credit and Funding Agreement dated December 9, 2010 between Olin Corporation, as borrower; PNC Bank, National Association, as administrative agent; PNC Capital Markets LLC, as lead arranger; and the Lenders party thereto—Exhibit 4.4 to Olin's Form 8-K filed December 30, 2010*
4.15	Second Amendment dated April 27, 2012 to Amended and Restated Credit and Funding Agreement dated December 9, 2010 among Olin Corporation, the Lenders as named therein, and PNC Bank, National Association, as administrative agent for the Lenders—Exhibit 4.2 to Olin's Form 8-K filed May 3, 2012*

4.16	Third Amendment dated June 23, 2014 to Amended and Restated Credit and Funding Agreement dated December 9, 2010 among Olin Corporation, the Lenders as named therein, and PNC Bank, National Association, as administrative agent for the Lenders—Exhibit 4.2 to Olin's Form 8-K filed June 25, 2014*
4.17	Amendment No. 4 dated June 23, 2015 to the Amended and Restated Credit and Funding Agreement dated December 9, 2010 among Olin Corporation, the Lenders as named therein, and PNC Bank, National Association, as administrative agent—Exhibit 10.3 to Olin's Form 8-K filed June 29, 2015*
4.18	Fifth Amendment dated September 29, 2016 to Amended and Restated Credit and Funding Agreement dated December 9, 2010 among Olin Corporation, the Lenders as named therein, and PNC Bank, National Association, as administrative agent for the Lenders—Exhibit 4.1 to Olin's Form 10-Q filed May 3, 2017*
4.19	Sixth Amendment dated March 9, 2017 to Amended and Restated Credit and Funding Agreement dated December 9, 2010 among Olin Corporation, the Lenders as named therein, and PNC Bank, National Association, as administrative agent for the Lenders—Exhibit 4.2 to Olin's Form 8-K filed March 9, 2017*
4.20	Seventh Amendment dated July 16, 2019 to Amended and Restated Credit and Funding Agreement dated December 9, 2010 among Olin Corporation, the Lenders as named therein, and PNC Bank, National Association, as administrative agent for the Lenders—Exhibit 4.3 to Olin's Form 8-K filed July 16, 2019*
4.21	Eighth Amendment dated December 20, 2019 to Amended and Restated Credit and Funding Agreement dated December 9, 2010 among Olin Corporation, the Lenders as named therein, and PNC Bank, National Association, as administrative agent for the Lenders—Exhibit 4.1 to Olin's Form 8-K filed December 20, 2019*
4.22	Ninth Amendment dated May 8, 2020 to Amended and Restated Credit and Funding Agreement dated December 9, 2010 among Olin Corporation, the Lenders as named therein, and PNC Bank, National Association, as administrative agent for the Lenders—Exhibit 4.1 to Olin's Form 8-K filed May 11, 2020*
4.23	Tenth Amendment to Amended and Restated Credit and Funding Agreement, dated as of February 24, 2021, among Olin Corporation, the Lenders (as defined therein), and PNC Bank, National Association, as Administrative Agent—Exhibit 4.1 to Olin's Form 8-K filed March 1, 2021*
4.24	Eleventh Amendment dated August 30, 2021 to Amended and Restated Credit and Funding Agreement dated December 9, 2010 among Olin Corporation, Olin Winchester, LLC, the Lenders as named therein, and PNC Bank, National Association, as administrative agent for the Lenders—Exhibit 4.1 to Olin's Form 10-Q filed October 22, 2021*
4.25	Twelfth Amendment to Amended and Restated Credit and Funding Agreement, dated as of October 11, 2022, among Olin Corporation, the Lenders (as defined therein), and PNC Bank, National Association, as administrative agent - Exhibit 4.1 to Olin's Form 8-K filed October 12, 2022*
4.26	Forward Purchase Agreement dated as of March 9, 2017, among Olin Corporation, the Lenders as named therein, and PNC Bank, National Association, as administrative agent—Exhibit 4.1 to Olin's Form 8-K filed March 9, 2017*
4.27	First Amendment dated August 30, 2021 to Forward Purchase Agreement dated March 9, 2017, among Olin Corporation, Olin Winchester, LLC, the Lenders as named therein, and PNC Bank, National Association , as administrative agent—Exhibit 4.2 to Olin's Form 10-Q filed October 22, 2021*
4.28	Senior Notes Indenture dated May 19, 2020 among Olin Corporation, as issuer, and U.S. Bank National Association, as trustee, governing the Senior Notes—Exhibit 4.1 to Olin's Form 8-K filed May 20, 2020*
4.29	First Supplemental Indenture dated September 30, 2020 between Olin Corporation, as issuer, as issuer, and U.S. Bank National Association, as trustee, governing the 9.500% Senior Notes due 2025—Exhibit 4.4 to Olin's Form 10-Q filed November 5, 2020*
4.30	Second Supplemental Indenture dated September 30, 2020 between Olin Corporation, as issuer, as issuer, and U.S. Bank National Association, as trustee, governing the 9.500% Senior Notes due 2025—Exhibit 4.1 to Olin's Form 8-K filed November 16, 2021*
4.31	Form of 5.125% Senior Notes due 2027—Exhibit 4.4 (included in Exhibit 4.3) to Olin's Form 8-K filed March 9, 2017*
4.32	Form of 5.000% Senior Notes due 2030—Exhibit 4.1 to Olin's Form 8-K filed January 19, 2018*
4.33	Form of 5.625% Senior Notes due 2029—Exhibit 4.2 (included in Exhibit 4.1) to Olin's Form 8-K filed July 16, 2019*
4.34	Form of 9.500% Senior Notes due 2025—Exhibit 4.2 (included in Exhibit 4.1) to Olin's Form 8-K filed May 20, 2020*
4.35	Receivables Financing Arrangement dated December 20, 2016 by and among Olin Corporation, Olin Finance Company, LLC, PNC Bank, National Association, PNC Capital Markets LLC and the Lender parties thereto—Exhibit 4(x) to Olin's Form 10-K filed February 28, 2017*
4.36	Amendment No. 1 dated July 16, 2019 to Receivables Financing Arrangement and Reaffirmation of Performance Guaranty dated December 20, 2016 among Olin Corporation, Olin Finance Company, LLC, PNC Bank, National Association, PNC Capital Markets LLC and the Lender parties thereto—Exhibit 10.2 to Olin's Form 8-K filed July 16, 2019*

4.37	Amendment No. 2 dated March 27, 2020 to Receivables Financing Arrangement and Reaffirmation of Performance Guaranty dated December 20, 2016 among Olin Corporation, Olin Finance Company, LLC, PNC Bank, National Association, PNC Capital Markets LLC and the Lender parties thereto—Exhibit 10.1 to Olin’s Form 8-K filed March 27, 2020*
4.38	Amendment No. 3 dated April 23, 2020 to Receivables Financing Arrangement and Reaffirmation of Performance Guaranty dated December 20, 2016 among Olin Corporation, Olin Finance Company, LLC, PNC Bank, National Association, PNC Capital Markets LLC and the Lender parties thereto—Exhibit 10.1 to Olin’s Form 8-K filed April 23, 2020*
4.39	Amendment No. 4 dated May 8, 2020 to Receivables Financing Arrangement and Reaffirmation of Performance Guaranty dated December 20, 2016 among Olin Corporation, Olin Finance Company, LLC, PNC Bank, National Association, PNC Capital Markets LLC and the Lender parties thereto—Exhibit 10.2 to Olin’s Form 8-K filed May 11, 2020*
4.40	Amendment No. 5 dated December 28, 2020 to Receivables Financing Arrangement and Reaffirmation of Performance Guaranty dated December 20, 2016 among Olin Corporation, Olin Finance Company, LLC, PNC Bank, National Association, PNC Capital Markets LLC and the Lender parties thereto—Exhibit 4.46 to Olin’s Form 10-K filed February 22, 2021*
4.41	Amendment No. 6 dated February 24, 2021 to Receivables Financing Arrangement and Reaffirmation of Performance Guaranty dated December 20, 2016 among Olin Corporation, Olin Finance Company, LLC, PNC Bank, National Association, PNC Capital Markets LLC and the Lender parties thereto—Exhibit 4.1 to Olin’s Form 10-Q filed April 28, 2021*
4.42	Amendment No. 7 dated September 28, 2021 to Receivables Financing Agreement dated December 20, 2016 among Olin Corporation, Olin Finance Company, LLC, PNC Bank, National Association, PNC Capital Markets LLC and the Lender parties thereto—Exhibit 10.1 to Olin’s Form 8-K filed September 29, 2021*
4.43	Amendment No. 8 dated January 20, 2022 to Receivables Financing Agreement dated December 20, 2016 among Olin Corporation, Olin Finance Company, LLC, PNC Bank, National Association, PNC Capital Markets LLC and the Lender parties thereto—Exhibit 4.53 to Olin’s Form 10-K filed February 24, 2022*
4.44	Amendment No. 9 to Receivables Financing Agreement and Reaffirmation of Performance Guaranty, dated as of October 11, 2022, among Olin Corporation, as servicer, Olin Finance Company, LLC, as borrower, PNC Bank, National Association, as administrative agent, PNC Capital Markets LLC, as structuring agent, and the Lender parties thereto — Exhibit 10.2 to Olin's Form 10Q filed October 27, 2022*
10.1	Senior Executive Pension Plan amended and restated effective October 24, 2008—Exhibit 10.1 to Olin’s Form 10-Q filed October 27, 2008*†
10.2	Supplemental Contributing Employee Ownership Plan as amended and restated effective January 1, 2018—Exhibit 99.1 to Olin’s Form 8-K filed December 12, 2017*†
10.3	Olin Corporation Change in Control Severance Plan for Section 16(b) Officers effective January 27, 2019—Exhibit 10.1 to Olin’s Form 8-K filed December 14, 2018*†
10.4	Olin Corporation Severance Plan for Section 16(b) Officers effective January 27, 2019—Exhibit 10.2 to Olin’s Form 8-K filed December 14, 2018*†
10.5	Amended and Restated 1997 Stock Plan for Non-employee Directors codified to reflect amendments adopted through December 6, 2023
10.6	Description of Restricted Stock Unit Awards granted under one of Olin's Long Term Incentive Plans—Exhibit 10.6 to Olin's Form 10-K filed February 23, 2023*†
10.7	Supplementary and Deferral Benefit Pension Plan as amended and restated effective October 24, 2008—Exhibit 10.2 to Olin’s Form 10-Q filed October 27, 2008*†
10.8	Amended and Restated Olin Corporation 2003 Long Term Incentive Plan codified as of January 27, 2019—Exhibit 10.2 to Olin’s Form 8-K filed January 30, 2019*†
10.9	Amended and Restated Olin Corporation 2006 Long Term Incentive Plan codified as of January 27, 2019—Exhibit 10.3 to Olin’s Form 8-K filed January 30, 2019*†
10.10	Amended and Restated Olin Corporation 2009 Long Term Incentive Plan codified as of January 27, 2019—Exhibit 10.4 to Olin’s Form 8-K filed January 30, 2019*†
10.11	Amended and Restated Olin Corporation 2014 Long Term Incentive Plan codified as of January 27, 2019—Exhibit 10.5 to Olin’s Form 8-K filed January 30, 2019*†
10.12	Amended and Restated Olin Corporation 2016 Long Term Incentive Plan codified as of January 27, 2019—Exhibit 10.6 to Olin’s Form 8-K filed January 30, 2019*†
10.13	Amended and Restated Olin Corporation 2018 Long Term Incentive Plan codified as of January 27, 2019—Exhibit 10.7 to Olin’s Form 8-K filed January 30, 2019*†
10.14	Amended and Restated Olin Corporation 2021 Long Term Incentive Plan codified as of April 22, 2021—Exhibit 10.1 to Olin’s Form 8-K/A filed April 26, 2021*†
10.15	Olin Corporation Section 16 Short-Term Incentive Plan—Exhibit 10.1 to Olin’s Form 8-K filed December 13, 2023*†

10.16	Performance Share Program adopted February 22, 2023—Exhibit 10.17 to Olin's Form 10-K filed February 23, 2023*†
10.17	Offer Letter dated July 14, 2020 by and between Scott M. Sutton and Olin Corporation—Exhibit 10.1 to Olin's Form 8-K filed July 15, 2020*†
10.18	Form of Non-Qualified Stock Option Award Certificate—Exhibit 10.19 to Olin's Form 10-K filed February 23, 2023*†
10.19	Form of Restricted Stock Unit Award Certificate—Exhibit 10.20 to Olin's Form 10-K filed February 23, 2023*†
10.20	Form of Performance Award Certificate—Exhibit 10.21 to Olin's Form 10-K filed February 23, 2023*†
10.21	Restricted Stock Award to Damian Gumpel dated December 10, 2021 and related Description—Exhibit 10.2 to Olin's Form 8-K filed December 10, 2021*†
10.22	Summary of Stock Option/Performance Share Continuation Provisions for Olin Employees as amended effective September 1, 2021—Exhibit 10.24 to Olin's Form 10-K filed February 23, 2023*†
10.23	Olin Corporation Contributing Employee Ownership Plan Amended and Restated effective as of January 1, 2018
10.24	Distribution Agreement between Olin Corporation and Arch Chemicals, Inc., dated as of February 1, 1999—Exhibit 2.1 to Olin's Form 8-K filed February 23, 1999*
10.25	Note Purchase Agreement dated December 22, 1997 between the SunBelt Chlor Alkali Partnership and the Purchasers named therein—Exhibit 99.5 to Olin's Form 8-K filed December 3, 2001*
10.26	Guarantee Agreement dated December 22, 1997 between Olin Corporation and the Purchasers named therein—Exhibit 99.6 to Olin's Form 8-K filed December 3, 2001*
10.27	Subordination Agreement dated December 22, 1997 between Olin Corporation and the Subordinated Parties named therein—Exhibit 99.7 to Olin's Form 8-K filed December 3, 2001*
10.28	Credit Agreement dated June 23, 2015 among Olin Corporation, Olin Canada ULC, the Lenders named therein and Wells Fargo Bank, National Association, as administrative agent—Exhibit 10.1 to Olin's Form 8-K filed June 29, 2015*
10.29	Credit Agreement dated June 23, 2015 among Blue Cube Spinco Inc., the Lenders as named therein and Wells Fargo Bank, National Association, as administrative agent—Exhibit 10.2 to Olin's Form 8-K filed June 29, 2015*
10.30	Amendment Agreement dated June 23, 2015 among Olin, Olin Canada ULC, Blue Cube Spinco Inc., the Lenders as named therein, and Wells Fargo Bank, National Association, as administrative agent—Exhibit 10.5 to Olin's Form 8-K filed October 5, 2015*
10.31	Second Amendment Agreement, dated as of March 9, 2017 among Olin Corporation, Olin Canada ULC and Blue Cube Spinco Inc., the Lenders named therein and Wells Fargo Bank, National Association, as administrative agent—Exhibit 10.1 to Olin's Form 8-K filed March 9, 2017*
10.32	Third Amendment Agreement, dated as of June 28, 2018, among Olin Corporation, Olin Canada ULC and Blue Cube Spinco LLC, the Lenders named therein and Wells Fargo Bank, National Association, as administrative agent—Exhibit 10.2 to Olin's Form 10-Q filed August 1, 2018*
10.33	Separation Agreement dated March 26, 2015 between The Dow Chemical Company and Blue Cube Spinco Inc.—Exhibit 10.1 to Olin's Form 8-K filed March 27, 2015*
10.34	Credit Agreement dated August 25, 2015 among Olin Corporation, Olin subsidiaries, the Lenders as named therein and Sumitomo Mitsui Banking Corporation, as administrative agent—Exhibit 10.1 to Olin's Form 8-K filed August 25, 2015*
10.35	Amended and Restated Credit Agreement, dated as of October 5, 2015 as Amended and Restated by the Second Amendment Agreement dated as of March 9, 2017 among Olin Corporation, Olin Canada ULC and Blue Cube Spinco Inc., the Lenders named therein and Wells Fargo Bank, National Association, as administrative agent—Exhibit 10.2 to Olin's Form 8-K filed March 9, 2017*
10.36	Credit Agreement dated July 16, 2019 among Olin Corporation, Blue Cube Spinco, LLC, the Lenders and Issuing Banks as named therein and Wells Fargo Bank, National Association—Exhibit 10.1 to Olin's Form 8-K filed July 16, 2019*
10.37	First Amendment dated December 20, 2019 to Credit Agreement dated July 16, 2019 among Olin Corporation, Blue Cube Spinco, LLC, the Lenders and Issuing Banks as named therein and Wells Fargo Bank, National Association—Exhibit 10.1 to Olin's Form 8-K filed December 20, 2019*
10.38	Second Amendment dated May 8, 2020 to Credit Agreement dated July 16, 2019 among Olin Corporation, Blue Cube Spinco, LLC, the Lenders and Issuing Banks as named therein and Wells Fargo Bank, National Association—Exhibit 10.1 to Olin's Form 8-K filed May 11, 2020*
10.39	Third Amendment to Credit Agreement, dated as of February 24, 2021, among Olin Corporation, the guarantors party thereto, the Lenders and Issuing Banks (as defined therein) and Bank of America, N.A., as Administrative Agent—Exhibit 10.1 to Olin's Form 8-K filed March 1, 2021*
10.40	Guaranty Agreement dated October 5, 2015 among Blue Cube Spinco Inc., Olin Corporation and Wells Fargo Bank, National Association, as administrative agent—Exhibit 10.2 to Olin's Form 8-K filed October 5, 2015*
10.41	Borrowing Subsidiary Agreement dated October 5, 2015 among Olin Corporation, Blue Cube Spinco Inc. and Wells Fargo Bank, National Association, as administrative agent—Exhibit 10.3 to Olin's Form 8-K filed October 5, 2015*

10.42	Guaranty Joinder dated October 5, 2015 among Olin subsidiaries, Blue Cube Spinco Inc. and Sumitomo Mitsui Banking Corporation, as administrative agent—Exhibit 10.4 to Olin's Form 8-K filed October 5, 2015*
10.43	Transition Agreement between Olin Corporation and Scott Sutton, Dated October 30, 2023 - Exhibit 10.1 to Olin's Form 8-K filed November 2, 2023*†
10.44	Form of Olin Corporation Retention Agreement—Exhibit 10.1 to Olin's Form 8-K filed December 20, 2023*†
10.45	Offer Letter dated February 15, 2024 by and between Kenneth Lane and Olin Corporation—Exhibit 10.1 to Olin's Form 8-K filed February 20, 2024*†
21	Subsidiaries of Olin Corporation
23	Consent of KPMG LLP
31.1	Section 302 Certification Statement of Chief Executive Officer
31.2	Section 302 Certification Statement of Chief Financial Officer
32	Section 906 Certification Statement of Chief Executive Officer and Chief Financial Officer
97	Olin Corporation Executive Officer Clawback Policy
101.INS	XBRL Instance Document (the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the XBRL document)
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (embedded in the Exhibit 101 Interactive Data Files)

*Previously filed as indicated and incorporated herein by reference. Exhibits incorporated by reference are located in SEC file No. 1-1070 unless otherwise indicated.

†Indicated management contract or compensatory arrangement.

Any exhibit is available from Olin by writing to the Secretary, Olin Corporation, 190 Carondelet Plaza, Suite 1530, Clayton, MO 63105 USA.

Shareholders may obtain information from EQ Shareowner Services, our registrar and transfer agent, who also manages our Automatic Dividend Reinvestment Plan by writing to: EQ Shareowner Services, 1110 Centre Pointe Curve, Suite 101, Mendota Heights, MN 55120 USA, by telephone from the United States at 800-401-1957 or outside the United States at 651-450-4064 or via their website under "Contact Us" at www.shareowneronline.com.

Item 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

OLIN CORPORATION
By: /s/ Scott Sutton
Scott Sutton
President and Chief Executive Officer

Date: February 22, 2024

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the date indicated.

Signature	***Title***	***Date***
/s/ SCOTT SUTTON Scott Sutton	President and Chief Executive Officer (Principal Executive Officer) and Director	February 22, 2024
/s/ BEVERLEY A. BABCOCK Beverley A. Babcock	Director	February 22, 2024
/s/ C. ROBERT BUNCH C. Robert Bunch	Director	February 22, 2024
/s/ MATTHEW S. DARNALL Matthew S. Darnall	Director	February 22, 2024
/s/ JULIE A. PIGGOTT Julie A. Piggott	Director	February 22, 2024
/s/ EARL L. SHIPP Earl L. Shipp	Director	February 22, 2024
/s/ WILLIAM H. WEIDEMAN William H. Weideman	Chairman and Director	February 22, 2024
/s/ W. ANTHONY WILL W. Anthony Will	Director	February 22, 2024
/s/ CAROL A. WILLIAMS Carol A. Williams	Director	February 22, 2024
/s/ TODD A. SLATER Todd A. Slater	Senior Vice President and Chief Financial Officer (Principal Financial Officer)	February 22, 2024
/s/ RANDEE N. SUMNER Randee N. Sumner	Vice President and Controller (Principal Accounting Officer)	February 22, 2024

Exhibit 4.1

OLIN CORPORATION
DESCRIPTION OF SECURITIES

DESCRIPTION OF CAPITAL STOCK

The following statements with respect to our capital stock are subject to the detailed provisions of our Amended and Restated Articles of Incorporation, as further amended or restated, which we refer to as the Articles of Incorporation, our Bylaws, as amended, which we refer to as the Bylaws, and the provisions of applicable Virginia law, the state in which we are incorporated. These statements do not purport to be complete, or to give full effect to the terms of the provisions of statutory or common law, and are subject to, and are qualified in their entirety by reference to, the terms of the Articles of Incorporation and the Bylaws, each of which has been filed as an exhibit to (or incorporated by reference in) our Annual Report on Form 10-K ("Form 10-K") filed with the Securities and Exchange Commission and the provisions of applicable Virginia law.

General

Our authorized stock consists of 240,000,000 shares of common stock, $1.00 par value per share, and 10,000,000 shares of preferred stock, $1.00 par value per share, issuable in one or more series. The number of shares of common stock outstanding is set forth in our audited financial statements included in our Form 10-K and Form 10-Q filings. No shares of preferred stock are outstanding.

Preferred Stock

The following description of the terms of the preferred stock sets forth certain general terms and provisions of the preferred stock. Specific terms of any series of the preferred stock will be set forth in an amendment to the Articles of Incorporation approved by our board of directors before any such shares are issued.

General. Under the Articles of Incorporation, our board of directors is authorized, without further shareholder action, to provide for the issuance of up to 10,000,000 shares of preferred stock in one or more series, with such voting powers and with such designations, preferences and relative, participating, optional or other special rights, and qualifications, limitations or restrictions, as shall be set forth in articles of an amendment to the Articles of Incorporation providing for the issuance thereof adopted by our board of directors or a duly authorized committee thereof.

The preferred stock will have the dividend, liquidation, redemption, conversion and voting rights set forth below unless otherwise provided in an amendment to the Articles of Incorporation. An amendment to the Articles of Incorporation may establish specific terms for the series of the preferred stock, including:

- the title and liquidation preference per share of such preferred stock and the number of shares offered;

- the price at which such preferred stock will be issued;

- the dividend rate, or method of calculation of dividends, the dates on which dividends shall be payable, whether such dividends shall be cumulative or noncumulative and, if cumulative, the dates from which dividends shall commence to accumulate;

- any redemption or sinking fund provisions of such preferred stock;

- any conversion provisions of such preferred stock; and

- any additional dividend, liquidation, redemption, sinking fund and other rights, preferences, privileges, limitations and restrictions of such preferred stock.

The preferred stock will, when issued, be fully paid and nonassessable. Unless otherwise specified, each series of the preferred stock will rank on a parity as to dividends and distributions in the event of a liquidation with our outstanding preferred stock and each other series of the preferred stock.

Dividend Rights. Holders of the preferred stock of each series will be entitled to receive, when, as and if declared by our board of directors, out of our assets legally available therefor, cash dividends at such rates and on such dates as are established for such series of the preferred stock. Such rate, which may be based upon one or more methods of determination, may be fixed or variable or both. Different series of the preferred stock may be entitled to dividends at different dividend rates or based upon different methods of determination. Each such dividend will be payable to the holders of record as they appear on our stock books on such record dates as will be fixed by our board of directors or a duly authorized committee thereof. Dividends on any series of the preferred stock may be cumulative or noncumulative. If our board of directors fails to declare a dividend payable on a dividend payment date on any series of preferred stock for which dividends are noncumulative, then the right to receive a dividend in respect of the dividend period ending on such dividend payment day will be lost, and we shall have no obligation to pay the dividend accrued for that period, whether or not dividends are declared for any future period.

If the terms of preferred stock issued so provide, when dividends are not paid in full upon any series of the preferred stock and any other preferred stock ranking on a parity as to dividends with such series of the preferred stock, all dividends declared upon such series of the preferred stock and any other preferred stock ranking on a parity as to dividends will be declared pro rata so that the amount of dividends declared per share on such series of the preferred stock and such other preferred stock will in all cases bear to each other the same ratio that accrued dividends per share on such series of the preferred stock and such other preferred stock bear to each other. Except as provided in the preceding sentence, unless full dividends, including, in the case of cumulative preferred stock, accumulations, if any, in respect of prior dividend payment periods, on all outstanding shares of any series of the preferred stock have been paid, no dividends, other than in shares of common stock or another stock ranking junior to such series of the preferred stock as to dividends and upon liquidation, will be declared or paid or set aside for payment or other distributions made upon our common stock or any of our other stock ranking junior to the preferred stock as to dividends. If the terms of preferred stock issued so provides, no common stock or any of our other stock ranking junior to or on a parity with such series of the preferred stock as to dividends or upon liquidation may be redeemed, purchased or otherwise acquired for any consideration, or any moneys paid to or made available for a sinking fund for the redemption of any shares of any such stock, by us, except by conversion into or exchange for our stock ranking junior to such series of the preferred stock as to dividends and upon liquidation.

The amount of dividends payable for each dividend period will be computed by annualizing the applicable dividend rate and dividing by the number of dividend periods in a year, except that the amount of dividends payable for the initial dividend period or any period shorter than a full dividend period shall be computed on the basis of 30-day months, a 360-day year and the actual number of days elapsed in the period.

Rights Upon Liquidation. In the event of any voluntary or involuntary liquidation, dissolution or winding up of our business, the holders of each series of preferred stock will be entitled to receive out of our assets available for distribution to shareholders, before any distribution of assets is made to holders of common stock or any other class of stock ranking junior to such series of preferred stock upon liquidation, liquidating distributions in the amount set forth in an amendment to the Articles of Incorporation. If, upon any voluntary or involuntary liquidation, dissolution or winding up of our business, the amounts payable with respect to the preferred stock of any series and any other shares of our stock ranking as to any such distribution on a parity with such series of the preferred stock are not paid in full, the holders of the preferred stock of such series and of such other shares will share ratably in any such distribution of our assets in proportion to the full respective preferential amounts to which they are entitled.

Redemption. A series of the preferred stock may be redeemable, in whole or in part, at our option, and may be subject to mandatory redemption pursuant to a sinking fund or otherwise, in each case upon terms, at the times and the redemption prices and for the types of consideration set forth in an amendment to the Articles of Incorporation.

An amendment to the Articles of Incorporation shall specify the number of shares of such series of preferred stock which shall be redeemed by us in each year commencing after a date to be specified, at a redemption price per share to be specified, together with an amount equal to any accrued and unpaid dividends thereon to the date of redemption.

Conversion Rights. An amendment to the Articles of Incorporation will state the terms, if any, on which shares of that series are convertible into shares of common stock or another series of our preferred stock. The preferred stock will have no preemptive rights.

Voting Rights. Except as indicated below or in an amendment to the Articles of Incorporation, or except as expressly required by applicable law, a holder of the preferred stock will not be entitled to vote. Except as indicated in an amendment to the Articles of Incorporation, in the event we issue shares of any series of preferred stock, each such share will be entitled to one vote on matters on which holders of such series of the preferred stock are entitled to vote.

The affirmative vote of the holders of a majority of the outstanding shares of any series of preferred stock, unless our board of directors establishes a higher amount, voting as a separate class, will be required for any amendment of the Articles of Incorporation which changes any rights or preferences of such series of preferred stock.

In addition to the foregoing voting rights, the holders of the preferred stock will have the voting rights set forth under "-General" above with respect to amendments to the Articles of Incorporation which would increase the number of authorized shares of our preferred stock.

Transfer Agent and Registrar. The transfer agent, registrar and dividend disbursement agent for a series of preferred stock will be selected by us. The registrar for shares of preferred stock will send notices to shareholders of any meetings at which holders of the preferred stock have the right to elect members of our board of directors or to vote on any other matter.

Common Stock

Holders of common stock are entitled to dividends as declared by our board of directors from time to time after payment of, or provision for, full cumulative dividends on and any required redemptions of shares of preferred stock then outstanding. Holders of common stock are entitled to one vote per share on all matters submitted for action by the shareholders and may not cumulate votes for the election of directors. Holders of common stock have no preemptive or subscription rights and have no liability for further calls or assessments. In the event of the liquidation, dissolution or winding up of our business, holders of common stock are entitled to receive pro rata all our remaining assets available for distribution, after satisfaction of the prior preferential rights of the preferred stock and the satisfaction of all our debts and liabilities.

The transfer agent and registrar for our common stock is EQ Shareowner Services.

Our common stock is listed on The New York Stock Exchange under the trading symbol "OLN."

Certain Provisions of Virginia Law, our Articles of Incorporation and our Bylaws

Certain Provisions of Virginia Law

We are subject to the following provisions of Virginia law which may have the effect of discouraging unsolicited acquisition proposals or delaying or preventing a change in control of our board of directors:

Antitakeover Statutes

As permitted by Virginia law, we have opted out of Article 14.1 of the Virginia Stock Corporation Act (the "VSCA"), the Virginia anti-takeover statute regulating "control share acquisitions", which are transactions causing the voting power of any person acquiring beneficial ownership of shares of a Virginia public corporation to meet or exceed certain threshold percentages (20%, 33 1/3% or 50%) of the total votes entitled to be cast for the election of directors. Under that Virginia statute, shares acquired in a control share acquisition have no voting rights unless granted by a majority vote of all outstanding shares entitled to vote in the election of directors other than those held by the acquiring person or held by any officer or employee director of the corporation, unless at the time of any control share acquisition, the articles of incorporation or bylaws of the corporation provide that this statute does not apply to acquisitions of its shares. An acquiring person that owns five percent or more of the corporation's voting stock may require that a special meeting of the shareholders be held, within 50 days of the acquiring person's request, to consider the grant of voting rights to the shares acquired or to be acquired in the control share acquisition. If voting rights are not granted and the corporation's articles of incorporation or bylaws permit, the acquiring person's shares may be redeemed by the corporation, at the corporation's option, at a price per share equal to the acquiring person's cost. Unless otherwise provided in the corporation's articles of incorporation or bylaws, the VSCA grants appraisal rights to any shareholder who objects to a control share acquisition that is approved by a vote of disinterested shareholders and that gives the acquiring person control of a majority of the corporation's voting shares. This regulation was designed to deter certain takeovers of Virginia public corporations.

We are subject to Article 14 of the VSCA, a Virginia statute regulating "affiliated transactions." An affiliated transaction is generally defined as a merger, a share exchange, a material disposition of corporate assets not in the ordinary course of business, any dissolution of the corporation proposed by or on behalf of a holder of more than 10 percent of any class of the corporation's outstanding voting shares (an "interested shareholder") or any reclassification, including reverse stock splits, recapitalization or merger of the corporation with its subsidiaries, that increases the percentage of voting shares owned beneficially by an interested shareholder by more than five percent. In general, these provisions prohibit a Virginia corporation from engaging in affiliated transactions with any interested shareholder for a period of three years following the date that such person became an interested shareholder unless (1) a majority of the disinterested directors on the board of directors of the corporation and the holders of two-thirds of the voting shares, other than the shares beneficially owned by the interested shareholder, approve the affiliated transaction or (2) before the date the person became an interested shareholder, majority of the disinterested directors on the board of directors approved the transaction that resulted in the shareholder becoming an interested shareholder.

After three years, any such transaction must be at a "fair price," as described in the VSCA, or must be approved by a majority of the disinterested directors or the holders of two-thirds of the voting shares, other than the shares beneficially owned by the interested shareholder.

Shareholder Action by Written Consent

The VSCA provides that, unless provided otherwise in a Virginia corporation's articles of incorporation, any action that may be authorized or taken at a meeting of shareholders may be authorized or taken without a meeting only by unanimous written consent of the shareholders who would be entitled to vote on the action. The Articles of Incorporation do not include a provision that permits shareholders to take action without a meeting other than by unanimous written consent.

Certain Provisions of the Articles of Incorporation and the Bylaws

We are subject to the following provisions of the Articles of Incorporation and the Bylaws, which may have the effect of discouraging unsolicited acquisition proposals or delaying or preventing a change in control of our board of directors, including:

Board of Directors. Subject to the rights granted to holders of any preferred stock, directors may be removed only with cause, and vacancies on our board of directors, including any vacancy created by an increase in the number of directors, may be filled at an annual meeting by shareholders entitled to vote in the election of directors or by a majority of the directors remaining in office, even though less than a quorum. If our board of directors fills a vacancy, the director's term expires at the next shareholders' meeting at which directors are elected.

Shareholder Nominations and Proposals. The Bylaws require that shareholders seeking to nominate candidates to election as directors at a meeting of shareholders or to present proposals before a meeting of shareholders provide advance notice in a timely manner, and also specific requirements as to the form and contents of a shareholder's notice.

Special Meetings of Shareholders. Special meetings of our shareholders may be called only by our board of directors, the chair of our board of directors, our president or our corporate secretary, on the written demand by the holders of a majority of the shares entitled to vote at the special meeting.

No Cumulative Voting. Neither the Articles of Incorporation or the Bylaws authorize cumulative voting in the election of directors.

Preferred Stock. Our board of directors has the authority without any vote or action by shareholders, to issue one or more series of preferred stock and to fix and determine the terms, including the preferences and rights, of any series of preferred stock.

Amendments to the Articles of Incorporation

Under Virginia law, unless a Virginia corporation's articles of incorporation provide for a greater or lesser vote, amendments of the articles of incorporation must be approved by each voting group entitled to vote on the proposed amendment by more than two-thirds of all the votes entitled to be cast by that voting group. However, the vote specified in the articles of incorporation may not be reduced to less than a majority of all votes cast by the voting group at a meeting at which a quorum of the voting group exists.

Our Articles of Incorporation provide that any amendment to our Articles of Incorporation is required to be approved only by a majority of the votes entitled to be cast by each voting group that is entitled to vote on the matter, unless in submitting an amendment or restatement to the shareholders our board of directors shall require a greater vote.

Amendments to the Bylaws

Under Virginia law, a corporation's shareholders or board of directors may amend or repeal bylaws, except to the extent that the corporation's articles of incorporation or Virginia law reserve the power exclusively to the shareholders. A corporation's shareholders may amend or repeal bylaws even though the bylaws may also be amended or repealed by its board of directors.

Our Bylaws may be altered, amended or repealed by our board of directors, subject to the power of the shareholders to alter or repeal the Bylaws made by the board of directors at any annual or special meeting of the shareholders. Subject to certain limitations, shareholders in altering, amending or repealing our Bylaws may provide that our board of directors may not subsequently alter, amend or repeal our Bylaws.

Exhibit 10.5

OLIN CORPORATION

AMENDED AND RESTATED
1997 STOCK PLAN FOR NON-EMPLOYEE DIRECTORS

(Codified to reflect amendments adopted through December 6, 2023)

1. **Purpose.** The purpose of the Olin Corporation 1997 Stock Plan for Non-employee Directors (the "Plan") is to promote the long-term growth and financial success of Olin Corporation by attracting and retaining non-employee directors of outstanding ability and by promoting a greater identity of interest between its non-employee directors and its shareholders.

2. **Definitions.** The following capitalized terms utilized herein have the following meanings:

"Board" means the Board of Directors of the Company.

"Cash Account" means an account established under the Plan for a Non-employee Director to which cash Board Chairman fees, Lead Director fees, Committee Chair fees and Cash Retainers, or other amounts under the Plan, have been or are to be credited in the form of cash.

"Cash Retainer" means with respect to a Non-employee Director the amount of the annual cash retainer payable to such Non-employee Director from time to time by the Company for service as a director. To be entitled to such amount for any Stock Grant Period, a Non-employee Director must be serving as such on the Retainer Credit Date for such Stock Grant Period; provided, however, that in the event a person becomes in a Stock Grant Period a Non-employee Director subsequent to such Retainer Credit Date, such Non-employee Director, on the Credit Date next following his or her becoming such, shall receive a cash retainer equal to one-twelfth of the full annual cash retainer payable to each other Non-employee Director as of the Retainer Credit Date for such Stock Grant Period, multiplied by the number of whole calendar months remaining in such Stock Grant Period following the date he or she becomes a Non-employee Director.

"Change in Control" means the occurrence of any of the following events:

(a) any person or Group acquires ownership of Olin's stock that, together with stock held by such person or Group, constitutes more than 50% of the total fair market value or total voting power of Olin's stock, (including an increase in the percentage of stock owned by any person or Group as a result of a transaction in which Olin acquires its stock in exchange for property, provided that the acquisition of additional stock by any person or Group deemed to own more than 50% of the total fair market value or total voting power of Olin's stock on January 1, 2005, shall not constitute a Change in Control); or

(b) any person or Group acquires (or has acquired during the 12-month period ending on the date of the most recent acquisition by such person or Group) ownership of Olin stock possessing 30% or more of the total voting power of Olin stock; or

(c) a majority of the members of Olin's board of directors is replaced during any 12-month period by directors whose appointment or election is not endorsed by a majority of the members of Olin's board of directors prior to the date of the appointment or election; or

(d) any person or Group acquires (or has acquired during the 12-month period ending on the date of the most recent acquisition by such person or Group) assets from Olin that have a total Gross Fair Market Value equal to 40% or more of the total Gross Fair Market Value of all Olin assets immediately prior to such acquisition or acquisitions, provided that there is no Change in Control when Olin's assets are transferred to:

(i) a shareholder of Olin (immediately before the asset transfer) in exchange for or with respect to Olin stock;

(ii) an entity, 50% or more of the total value or voting power of which is owned, directly or indirectly, by Olin;

(iii) a person or Group that owns, directly or indirectly, 50% or more of the total value or voting power of all outstanding Olin stock; or

(iv) an entity, at least 50% of the total value or voting power of which is owned, directly or indirectly, by a person described in paragraph (iii).

For purposes of this paragraph (d), a person's status is determined immediately after the transfer of the assets. For example, a transfer to a corporation in which Olin has no ownership interest before the transaction, but which is a majority-owned subsidiary of Olin after the transaction, is not a Change in Control.

"Code" means the Internal Revenue Code of 1986, as amended from time to time, and any applicable rules, regulations and/or other guidance thereunder. A reference to any provision of the Code shall include reference to any successor provision of the Code.

"Committee" means the Compensation Committee (or its successor) of the Board.

"Common Stock" means the Company's common stock, $1.00 par value per share.

"Company" or "Olin" means Olin Corporation, a Virginia corporation, and any successor.

"Credit Date" for a year means (i) the second Thursday in February, (ii) the applicable Retainer Credit Date, (iii) the second Thursday in August and November and (iv) the date that is one week after the regularly scheduled board meeting in December or, in the event the December board meeting extends for more than one day, one week after the first day of such regularly scheduled board meeting held in December.

"Fair Market Value" means, with respect to a date, on a per share basis, with respect to phantom shares of Common Stock, the average of the high and the low price of a share of Common Stock as reported on the consolidated tape of the New York Stock Exchange on such date or if the New York Stock Exchange is closed on such date, the next succeeding date on which it is open.

"Gross Fair Market Value" means the value of assets determined without regard to any liabilities associated with such assets.

"Group" means persons acting together for the purpose of acquiring Olin stock and includes owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with Olin. If a person owns stock in both Olin and another corporation that enter into a merger, consolidation purchase or acquisition of stock, or similar transaction, such person is considered to be part of a Group only with respect to ownership prior to the merger or other transaction giving rise to the change and not with respect to the ownership interest in the other corporation. Persons will not be considered to be acting as a Group solely because they purchase assets of the same corporation at the same time, or as a result of the same public offering.

"Interest Rate" effective as of January 1, 2005, means the rate of interest equal to the Federal Reserve A1/P1 Composite rate for 90 day commercial paper plus 10 basis points, or such other specified, non-discretionary interest rate (or formula describing such rate) established by the Committee on a prospective basis.

"Exchange Act" means the Securities Exchange Act of 1934, as amended from time to time.

"Non-employee Director" means a member of the Board who is not an employee of the Company or any subsidiary thereof.

"Plan" means this Olin Corporation 1997 Stock Plan for Non-employee Directors as amended from time to time.

"Prior Plans" means the 1994 Plan and all of the Corporation's other directors' compensation plans, programs, or arrangements which provided for a deferred cash or stock account.

"Retainer Credit Date" means May 1st of each year or, if later, the first day in May on which the New York Stock Exchange is open for trading in such year; provided, however, if the annual Company shareholder meeting for such year is after such date, the Retainer Credit Date for such year shall be the first day after such meeting on which the New York Stock Exchange is open for trading.

"Retirement Date" means the date the Non-employee Director (i) ceases to be a member of the Board for any reason and (ii) effective as of January 1, 2005, has experienced a "separation from service" as that term is used in Code Section 409A.

"Stock Account" means an account established under the Plan for a Non-employee Director to which shares of Common Stock have been or are to be credited from time to time in the form of phantom stock.

"Stock Grant Period" means an account established under the Plan for a Non-employee Director to which shares of Common Stock have been or are to be credited from time to time in the form of phantom stock.

3. **Term.** The Plan originally became effective January 1, 1997, and was last amended and restated effective as of October 27, 2021, and is now amended and restated as set forth herein. Notwithstanding the foregoing, those provisions required for compliance with Code Section 409A shall be generally effective as of January 1, 2005 or as otherwise specifically set forth herein.

4. **Administration.** Full power and authority to construe, interpret and administer the Plan shall be vested in the Committee. Decisions of the Committee shall be final, conclusive and binding upon all parties.

5. **Participation.** All Non-employee Directors shall participate in the Plan.

6. **Grants and Deferrals.**

(a) Annual Stock Grant. Subject to the terms and conditions of the Plan, on the Retainer Credit Date each year, each Non-employee Director shall be credited with a number of shares of Common Stock with an aggregate Fair Market Value on such Retainer Credit Date equal to $115,000, rounded to the nearest 100 shares. To be entitled to such credit for any Stock Grant Period, a Non-employee Director must be serving as such on the Retainer Credit Date for such Stock Grant Period; provided, however, that in the event a person becomes in a Stock Grant Period a Non-employee Director subsequent to such Retainer Credit Date, such Non-employee Director, on the Credit Date next following his or her becoming such, shall be credited with that number of shares of Common Stock equal to one-twelfth of the number of shares issued to each other Non-employee Director as the Annual Stock Grant for such Stock Grant Period, multiplied by the number of whole calendar months remaining in such Stock Grant Period following the date he or she becomes a Non-employee Director (rounded up to the next whole share in the event of a fractional share). Actual receipt of shares shall be deferred to a Non-Employee Director's Stock Account in accordance with Section 6(e)(2) and each eligible Non-employee Director shall receive a credit to his or her Stock Account for such shares on the date of such credit.

(b) Annual Retainer Stock Grant. Subject to the terms and conditions of the Plan, each Non-employee Director who is such on the Retainer Credit Date of that year shall receive that number of shares (rounded up to the next whole share) of Common Stock having an aggregate Fair Market Value of $40,000 on such Retainer Credit Date. To be entitled to such credit for any Stock Grant Period, a Non-employee Director must be serving as such on the Retainer Credit Date for such Stock Grant Period; provided, however, that in the event a person becomes in a Stock Grant Period a Non-employee Director subsequent to such Retainer Credit Date, such Non-employee Director, on the Credit Date next following his or her becoming such, shall receive that number of shares of Common Stock equal to one-twelfth of the number of shares issued to each other Non-employee Director as the Annual Retainer Stock Grant for such Stock Grant Period, multiplied by the number of whole calendar months remaining in such Stock Grant Period following the date he or she becomes a Non-employee Director (rounded up to the next whole share in the event of a fractional share). A Non-employee Director may elect to defer receipt of all such shares in accordance with Section 6(e). Except with respect to any shares the director has so elected to defer, certificates representing such shares shall be delivered to such Non-employee Director (or in the event of death, to his or her beneficiary designated pursuant to Section 6(h)) as soon as practicable, but no later than thirty (30) days, following the Retainer Credit Date (or the applicable Credit Date in the event a person becomes a Non-employee Director subsequent to the Retainer Credit Date).

(c) Cash Payment of Board Chairman Fees, Lead Director Fees, Committee Chair Fees and Cash Retainer. Cash payments of Committee Chair fees shall be made on the second Credit Date of each year, and cash payments of Board Chairman fees and Lead Director fees shall be made in four equal payments on the first four Credit Dates of each year. The Cash Retainer payable to the Non-employee Director shall be payable on the Retainer Credit Date of each year (or, in the event a person becomes a Non-employee Director subsequent to the Retainer Credit Date, the next applicable Credit Date). Except with respect to any cash payments the director has elected to defer in accordance with Section 6(e), such payment shall be delivered to the Non-employee Director on or as soon as practicable, but no later than thirty (30) days, following the applicable Credit Date (or, in the case of the Cash Retainer, the Retainer Credit Date or applicable Credit Date).

(d) Deferral of Board Chairman Fees, Lead Director Fees, Committee Chair Fees and Cash Retainer. Subject to the terms and conditions of the Plan, a Non-employee Director may elect to defer all of the cash payable under Section 6(c) for his or her service as a director for the calendar year to such Non-employee Director's Cash Account or Stock Account. The number of shares (rounded up to the next whole share in the event of a fractional share) contributed to the Stock Account of a Non-Employee Director who elects to defer the cash payable in the form of shares shall be equal to the amount of the cash fees divided by the Fair Market Value of a share of Common Stock on the Retainer Credit Date (or, in the event a person becomes a Non-employee Director subsequent to the Retainer Credit Date, the next applicable Credit Date) of such year. Any election(s) pursuant to this Section 6(d) shall be made in accordance with Section 6(e).

(e) Elections.

(1) Deferrals. Effective as of January 1, 2005, all elections to defer payment of compensation under this Plan shall:

- be made in writing and delivered to the Secretary of the Company,
- be irrevocable once the year to which the election relates commences,
- be made before January 1 of the year in which the shares of Common Stock or director's fees and retainer are to be earned (or, in the case of an individual who becomes a Non-employee Director during a calendar year, within 30 days of the date of his or her election as a director; notwithstanding the foregoing no amounts earned prior to an election shall be deferred by new participants), and
- if applicable, specify whether the deferral of all of the cash payable under Section 6(c) shall be to the Non-Employee Director's Cash Account or Stock Account.

(2) Stock and Cash Account Payments. Effective as of January 1, 2005, Stock and Cash Accounts shall be paid in a single lump sum payment within 30 days of the Non-employee Director's Retirement Date unless the Non-employee Director makes an election as set forth below:

- a payment election, if any, shall be made on or before the earlier of:
    - the time such individual makes any deferral election under the Plan, or

- ◦ the end of the 30 day period following the date an individual first becomes a Non-employee Director.

- a Non-employee Director may elect to receive payment in up to 5 annual installments.

Notwithstanding any election, Plan payments will be made (or annual installments will begin) upon a Non-employee Director's death. All payments shall be made (or each annual installment shall be paid) within 30 days of the prescribed payment date, and any payment election shall be irrevocable except as permitted in Section 6(e)(4) below.

(3) Dividends and Interest on Stock and Cash Accounts. Dividends and interest on Stock and Cash Accounts, respectively, shall be paid as provided in Section 6(e)(8) unless the Non-employee Director makes an election to have interest deferred and credited back to his or her Cash Account (and shall be payable in accordance with Sections 6(e)(2) and (4) herein); provided that such election is made within the time period prescribed by Section 6(e)(2) above. For the avoidance of doubt, dividends payable with respect to Stock Accounts are not deferrable.

(4) Change in Payment Election. Any change with respect to a Non-employee Director's payment election under the Plan will not be effective for one year, must be made at least one (1) year in advance of the first date payment is scheduled and must further defer all payments by at least five (5) years from the prior scheduled payment date. Notwithstanding the foregoing, for the transition period beginning January 1, 2005 and ending December 31, 2008, any Non-employee Director may make a payment election in accordance with Code Section 409A (and applicable IRS transition relief), in the time and manner prescribed by the Committee and subject to the following provisions. As of December 31, 2008, any then effective transition payment elections shall be irrevocable for the duration of a Non-employee Director's participation in the Plan except as set forth in the first sentence of this Section 6(e)(4). No election made in 2008 under this transition relief will apply to amounts that would otherwise be payable in 2008, nor may such election cause an amount to be paid in 2008 that would not otherwise be payable in 2008. No election under this transition relief may be made retroactively, when Plan payments are imminent, or after a Non-employee Director has left the Board.

(5) Stock Account. A Non-employee Director who has elected to defer shares under Section 6(b) or his or her Cash Retainer and other cash fees in the form of shares under Section 6(d) shall receive a credit to his or her Stock Account on the Retainer Credit Date for amounts deferred from the Annual Retainer Stock Grant or the Cash Retainer and other cash fees (or the applicable Credit Date in the event a person becomes a Non-employee Director subsequent to the Retainer Credit Date). The amount of such credit shall be the number of shares so deferred (rounded to the next whole share in the event of a fractional share).

(6) Cash Account. On the applicable Credit Date or in the case of the Cash Retainer, on the Retainer Credit Date (or applicable Credit Date), a Non-employee Director who has elected to defer cash fees and/or the Cash Retainer under Section 6(d) in the form of cash shall receive a credit to his or her Cash Account. The amount of the credit shall be the dollar amount of such Director's Board Chairman fees, Lead Director fees or Committee Chair fees earned during the immediately preceding quarterly period or the amount of the Cash Retainer to be paid for the calendar year, as the case may be, and in each case, specified for deferral in cash. A Non-employee Director may elect to defer interest paid on his or her Cash Account in accordance with Section 6(e)(3).

(7) Installment Payments. Installment payments from an Stock or Cash Account shall be equal to the Stock or Cash Account balance (expressed in shares in the case of the Stock Account, otherwise the cash value of the Cash Account) at the time of the installment payment times a fraction, the numerator of which is one and the denominator of which is the number of installments not yet paid. Fractional shares to be paid in any installment shall be rounded up to the next whole share.

(8) Dividends and Interest. Each time a cash dividend is paid on Common Stock, a Non-employee Director who has shares of such stock credited to his or her Stock Account shall be paid on the dividend payment date such cash dividend in an amount equal to the product of the number of shares credited to the Non-employee Director's Stock Account on the record date for such dividend times the dividend paid per applicable share. A Non-employee Director who has a Cash Account shall be paid interest directly on such account's balance at the end of each calendar quarter, payable at a rate equal to the Interest Rate in effect for such quarter unless such Non-employee Director has elected to defer such interest to his or her Cash Account, in which case such interest shall be credited to such Cash Account at the end of each calendar quarter. All amounts paid pursuant to this subsection (8) shall be paid on or as soon as practicable, but no later than thirty (30) days, following the applicable payment date (i.e., the applicable dividend payment date or end date of the fiscal quarter).

(9) Payouts. Cash Accounts will be paid out in cash and Stock Accounts shall be paid out in shares of Common Stock unless the Non-employee Director elects at the time the payment is due to take the Stock Account in cash.

(f) No Stock Rights. Except as expressly provided herein, the deferral of shares of Common Stock into a Stock Account shall confer no rights upon such Non-employee Director, as a shareholder of the Company or otherwise, with respect to the shares held in such Stock Account, but shall confer only the right to receive such shares credited as and when provided herein.

(g) Change in Control. Notwithstanding anything to the contrary in this Plan or any election, in the event a Change in Control occurs, amounts and shares credited to Cash Accounts (including interest accrued to the date of payout) and Stock Accounts shall be promptly (but no later than thirty (30) days following the Change in Control) distributed to Non-employee Directors except the Stock Account shall be paid out in cash and not in the form of shares of Common Stock. For this purpose, the cash value of the amount in the Stock Account shall be determined by multiplying the number of shares held in the Stock Account by the higher of (i) the highest Fair Market Value of Common Stock on any date within the period commencing thirty (30) days prior to such Change in Control and ending on the date of the Change in Control, or (ii) if the Change in Control occurs as a result of a tender or exchange offer or consummation of a corporate transaction, then the highest price paid per share of Common Stock pursuant thereto.

(h) Beneficiaries. A Non-employee Director may designate at any time and from time to time a beneficiary for his or her Stock and Cash Accounts in the event his or her Stock or Cash Account may be paid out following his or her death. Such designation shall be in writing and must be received by the Company prior to the death to be effective.

(i) Prior Plan Accounts. Any transfers made to a Cash Account or a Stock Account from Prior Plans shall be maintained and administered pursuant to the terms and conditions of this Plan; provided that prior annual 100- or 204-share grant deferrals shall be treated as deferrals of 204-share grants under this Plan, the $25,000 annual share grant under the 1994 Plan shall be treated as deferrals under Paragraph 6(b) hereof and deferrals of meeting fees under all Prior Plans and of the excess retainer under the 1994 Plan shall be treated as deferrals under Paragraph 6(c) hereof. Prior elections and beneficiary designations under the 1994 Plan and this Plan shall govern this Plan unless changed subsequent to October 2, 1997.

7. **Limitations and Conditions.**

(a) Total Number of Shares. The total number of shares of Common Stock that may be issued to Non-employee Directors under the Plan is 850,000, which may be increased or decreased by the events set forth in Section 8. Such total number of shares may consist, in whole or in part, of authorized but unissued shares. If any shares granted under this Plan are not delivered to a Non-employee Director or a beneficiary because the payout of the grant is settled in cash, such shares shall not be deemed to have been delivered for purposes of determining the maximum number of shares available for delivery under the Plan. No fractional shares shall be issued hereunder. In the event a Non-employee Director is entitled to a fractional share, such share amount shall be rounded upward to the next whole share amount.

(b) No Additional Rights. Nothing contained herein shall be deemed to create a right in any Non-employee Director to remain a member of the Board, to be nominated for reelection or to be reelected as such or, after ceasing to be such a member, to receive any cash or shares of Common Stock under the Plan which are not already credited to his or her accounts.

8. **Stock Adjustments.** In the event of any merger, consolidation, stock or other non-cash dividend, extraordinary cash dividend, split-up, spin-off, combination or exchange of shares or recapitalization or change in capitalization, or any other similar corporate event, the Committee shall make such adjustments in (i) the aggregate number of shares of Common Stock that may be issued under the Plan as set forth in Section 7(a) and the number of shares that may be issued to a Non-employee Director with respect to any year as set forth in Section 6(a) and the number of shares of Common Stock held in a Stock Account, (ii) the class of shares that may be issued under the Plan, and (iii) the amount and type of payment that may be made in respect of unpaid dividends on shares of Common Stock whose receipt has been deferred pursuant to Section 6(e), as the Committee shall deem appropriate in the circumstances. The determination by the Committee as to the terms of any of the foregoing adjustments shall be final, conclusive and binding for all purposes of the Plan.

9. **Amendment and Termination.** This Plan may be amended, suspended or terminated by action of the Board, except to the extent that amendments are required to be approved by the Company's shareholders under applicable law or the rules of the New York Stock Exchange or any other exchange or market system on which the Common Stock is listed or traded. No termination of the Plan shall adversely affect the rights of any Non-employee Director with respect to any amounts otherwise payable or credited to his or her Cash Account or Stock Account.

10. **Nonassignability.** No right to receive any payments under the Plan or any amounts credited to a Non-employee Director's Stock or Cash Account shall be assignable or transferable by such Non-employee Director other than by will or the laws of descent and distribution or pursuant to a domestic relations order. The designation of a beneficiary under Section 6(h) by a Non-employee Director does not constitute a transfer.

11. **Unsecured Obligation.** Benefits payable under this Plan shall be an unsecured obligation of the Company.

12. **Rule 16b-3 Compliance.** It is the intention of the Company that all transactions under the Plan be exempt from liability imposed by Section 16(b) of the Exchange Act. Therefore, if any transaction under the Plan is found not to be in compliance with an exemption from such Section 16(b), the provision of the Plan governing such transaction shall be deemed amended so that the transaction does so comply and is so exempt, to the extent permitted by law and deemed advisable by the Committee, and in all events the Plan shall be construed in favor of its meeting the requirements of an exemption. Scheduled Plan payments will be delayed where the Committee reasonably anticipates that the making of the payment will violate Federal securities laws or other applicable law; provided that such payment shall be made at the earliest date at which the Committee reasonably anticipates that the making of the payment will not cause such violation.

13. **Code Section 409A Compliance.** To the extent any provision of the Plan or action by the Board or Committee would subject any Non-employee Director to liability for interest or additional taxes under Code Section 409A, it will be deemed null and void, to the extent permitted by law and deemed advisable by the Committee. It is intended that the Plan will comply with Code Section 409A, and the Plan shall be interpreted and construed on a basis consistent with such intent. The Plan may be amended in any respect deemed necessary (including retroactively) by the Committee in order to preserve compliance with Code Section 409A. If, regardless of the foregoing, any Non-employee Director is liable for interest or additional taxes under Code Section 409A with respect to his or her Stock or Cash Account (or a portion thereof), such Stock or Cash Account (or applicable portion thereof) shall be paid at such time. The preceding shall not be construed as a guarantee of any particular tax effect for any benefits or amounts deferred or paid out under the Plan.

Exhibit 10.23

Final Execution Version

OLIN CORPORATION

CONTRIBUTING EMPLOYEE OWNERSHIP PLAN

Amended and Restated as of January 1, 2018

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OLIN CORPORATION

CONTRIBUTING EMPLOYEE OWNERSHIP PLAN

Amended and Restated Effective as of January 1, 2018

INTRODUCTION

The Olin Corporation Contributing Employee Ownership Plan (the "Plan") is a stock bonus plan that includes a cash or deferred arrangement and includes an "employee stock ownership plan" component (an "ESOP") within the meaning of Section 4975(e)(7) of the Internal Revenue Code of 1986, as amended (the "Code"). The ESOP portion of the Plan is designed to invest primarily in employer securities as defined in Section 409(l) of the Code.

The Plan is amended and restated in this Plan document, the terms of which shall be effective as of January 1, 2018 (the "Restatement Effective Date"), except as otherwise provided herein, and all prior statutory requirements are carried forward in the Plan. This Plan is intended to be in good faith compliance with the requirements of the Pension Protection Act of 2006, the Worker, Retiree, and Employer Recovery Act of 2008 and the Heroes Earning Assistance and Relief Tax Act. The rights of Employees terminating service prior to the Restatement Effective Date shall be governed by the terms of the Prior Plan in effect as of the date the employee terminated service, provided, however, that if the Employee retains an Account under this Plan after its Restatement Effective Date, the administration, timing and valuation of the distribution of such Account shall be determined under the terms of this Plan.

The participation of each Participating Employer in this Plan shall be limited to providing benefits for Participants who are or have been in the employ of such Participating Employer and its Affiliated Companies. Contributions by a Participating Employer shall be determined on the basis of Participants who have been employed by that particular Participating Employer. The Plan shall be administered as a single plan and not as separate plans of the Company and each Participating Employer. All contributions made by the Company and by Participating Employers under the Plan, together with any increment attributable thereto, shall be used to pay benefits to Participants under the Plan in accordance with the provisions of the Plan and without regard to which Participating Employer or Participating Employers have funded the particular Participant's benefits.

The purposes of the Plan are to encourage thrift on the part of employees by furnishing them with a means to save for the future.

BRIEF HISTORY

Olin Corporation established the Plan effective July 1, 1964. The Plan was established as a savings plan for eligible employees and was originally known as the Olin Employee Incentive Thrift Plan. Effective June 12, 1989, the Plan, which was then a stock bonus plan with a cash or deferred arrangement, was renamed the Olin Corporation Contributing Employee Ownership Plan and was amended to include the ESOP portion of the Plan. The Plan was thereafter amended from time to time prior to this restatement.

Effective as of February 8, 1999, the date of the spin-off of Arch Chemicals, Inc. ("Arch") from the Company, the Plan was converted into a multiple employer plan covering the employees of Olin and its Affiliated Companies, and employees of Arch and its Affiliated Companies. Effective as of March 1, 2001, Arch ceased to be a Participating Employer in the Plan and the Plan ceased to be a multiple employer plan. Effective as of the same date, the Accounts of all Arch Participants were transferred to the Arch Chemicals, Inc. Contributing Employee Ownership Plan. During the time that the Plan was a multiple employer Plan, the ESOP portion of the Plan consisted of two ESOP sub-Accounts: with respect to the Company and its Affiliated Companies, a sub-account which was invested in employer securities of the Company, and with respect to Arch and its Affiliated Companies, a sub-account which was invested in qualifying employer securities of Arch. The provisions applicable when the Plan was a multiple employer plan have been generally removed.

Effective as of September 1, 2001, Monarch Brass & Copper Corporation and its affiliates ("Monarch"), a wholly owned subsidiary of Olin Corporation, became a Participating Employer in the Plan and its stock bonus plans were merged into this Plan.

Effective as of July 2, 2007, the Chase Brass & Copper Company Savings and Profit Sharing Plan and the Savings Plan for Hourly Employees of Chase Brass & Copper Company (referred to herein as the "Chase Plans") were merged into the Plan. After the merger of the Chase Plans into the Plan and related transfer of accounts under the Chase Plans to the trustee/recordkeeper of the Plan, participants and beneficiaries in the Chase Plans with respect to such accounts shall participate in the Olin Plan under the terms and conditions of the Plan.

Effective as of January 1, 2008, Pioneer Companies Inc., a wholly owned subsidiary of Olin Corporation, and its affiliates ("Pioneer"), became a Participating Employer in the Plan, and participation and contributions under its qualified defined contribution pension plans (the Pioneer Americas LLC Savings Plan for Henderson Bargaining Unit Employees, Pioneer America's LLC Savings Plan for Salaried Employees and Pioneer Americas LLC Savings Plan for Tacoma Bargaining Unit Employees (referred to herein as the "Pioneer Plans") were frozen as of December 31, 2007. The Pioneer Plans were merged into the Plan as of March 31, 2008. After the merger of the Pioneer Plans into the Plan and related transfer of accounts under the Pioneer Plans to the trustee/recordkeeper of the Plan, participants and beneficiaries in the Pioneer Plans with respect to such accounts shall participate in the Olin Plan under the terms and conditions of the Plan.

Effective as of the establishment date of Winchester Ammunitions Inc. in early 2011, Winchester Ammunitions Inc. and its affiliates ("Winchester Ammunitions"), a wholly owned subsidiary of Olin Corporation, became a Participating Employer in the Plan.

Effective as of January 1, 2013, Olin Chlor Alkali Logistics, Inc. and its affiliates ("Chlor Alkali Logistics"), a wholly owned subsidiary of Olin Corporation, became a Participating Employer in the Plan.

Effective as of January 1, 2014, Olin/K.A. Steel Chemicals, Inc. ("KA Steel") became a Participating Employer in the Plan (but only with respect to such collectively bargained employees at KA Steel for whom participation in the Plan has been bargained for).

Effective as of August 19, 2014, KA Steel became a fully Participating Employer in the Plan, and participation and contributions under its qualified defined contribution pension plans (the K.A. Steel Chemicals Inc. Remote Drivers' 401(k) Plan, K.A. Steel Chemicals Inc. Employees 401(k) Plan and K.A. Steel Chemicals Drivers' 401(k) Plan (referred to herein as the "KA Steel Plans")) were merged into the Plan as of such date.

As part of the transaction between The Dow Chemical Company ("Dow") and the Company regarding the spinoff of Dow's chlorine-related business to the Company as of October 5, 2015 (the "Dow Transaction"), the employment of certain Dow employees (including collectively bargained employees) transferred from Dow to the Blue Cube Operations, LLC (the "Olin Dow Subsidiary") on such date (the "Dow Transferees"). As of the Dow Transaction, the Olin Dow Subsidiary became a Participating Employer in the Plan.

ARTICLE I

DEFINITIONS

"Account" shall mean with respect to any Participant, the aggregate of his Tax Deferred Contribution Account, his Roth 401(k) Contribution Account, his Taxed Contribution Account, his Company Contribution Account, Rollover Contribution Account, and such other account(s) or sub-accounts as may be established by the Administrative Committee or the Trustee.

"Active Participant" shall mean any Eligible Employee who participates in the Plan pursuant to Article II, who is actively employed by an Affiliated Company and who still has an Account under the Plan.

"Actual Contribution Percentage" shall mean, with respect to a specified group of Eligible Employees, the average of the Contribution Percentages of the Eligible Employees in each group. The Contribution Percentages are ratios (expressed as percentages) for each Eligible Employee in the group, determined by dividing

(a) the sum of (i) the fair market value of any Matching Contributions (and Performance Matching Contributions, and qualified non-elective contributions, if any, but excluding any amounts used to satisfy the minimum top heavy allocation described in Appendix A) made on behalf of the Eligible Employee for the Plan Year, plus (ii) Taxed Contributions made on behalf of or by the Eligible Employee for the Plan Year, by
(b) the Eligible Employee's Earnings for that Plan Year.

For purposes of determining such ratios, Eligible Employee includes:

(I) an Employee who is directly or indirectly eligible to make a Tax Deferred Contribution or to receive an allocation of Matching Contributions and Performance Matching Contributions (including allocations derived from forfeitures) under the Plan for a Plan Year;

(II) an Employee who is unable to make a Tax Deferred Contribution or to receive an allocation of Matching Contributions or Performance Matching Contributions because the Employee has not contributed to this Plan or another plan of an Affiliated Company;

(III) an Employee who would be eligible to make Tax Deferred Contributions but for a suspension due to a distribution, a loan or an election not to participate in the Plan (other than certain one-time elections), even though the Employee may not make such Tax Deferred Contributions or receive an allocation of Matching Contributions or Performance Matching Contributions by reason of such suspension; or

(IV) an Employee who is unable to make a Tax Deferred Contribution or to receive an allocation of Matching Contributions or Performance Matching Contributions because such Employee may receive no additional annual additions because of Section 415(c)(1) or, prior to January 1, 2000, because of Section 415(e) of the Code.

In the case of an Eligible Employee described in paragraphs (I), (II), (III) or (IV) above who makes no Tax Deferred Contributions and receives no Matching Contributions or Performance Matching Contributions under the Plan for a Plan Year, the Contribution Percentage for such Participant that is to be included in determining the Average Contribution Percentage for such Plan Year shall be zero. In determining the Contribution Percentage, the Administrative Committee may elect, to the extent permitted in regulations, to take into account elective deferrals (defined in Code Section 402(g)(3)(A) and qualified non-elective deferrals which are subject to Code Section 401(k) restrictions (as defined in Code Section 401(m)(4)(C)) contributed to any Plan maintained by the Company or an Affiliated Company.

In determining the Contribution Percentages, the following Matching Contributions and Performance Matching Contributions shall be excluded:

(x) Matching Contributions and Performance Matching Contributions that a Participant forfeits because they correspond to Tax Deferred Contributions in excess of the permissible dollar limits contained in Code Section 402(g);

(y) Matching Contributions and Performance Matching Contributions forfeited, or returned to the Participant, in order to correct an allocation in excess of Section 415(c) of the Code; and

(z) Matching Contributions and Performance Matching Contributions that a Participant forfeits in conjunction with a distribution made to meet the limitations described in Sections 3.2 and 3.5 of the Plan.

The Actual Contribution Percentage shall be computed to the nearest one hundredth of one percent of the Eligible Employee's Earnings.

The Actual Contribution Percentage shall be determined separately with respect to the Bargaining Unit Employees and Non-Bargaining Unit Employees within each of these two groups.

The Actual Contribution Percentage is computed in accordance with the foregoing formula on the basis of current Plan Year data for Participants, notwithstanding the changes to Code Section 401(m)(2)(A) enacted as part of the Small Business Job Protection Act of 1996. Such election, once made, cannot be revoked except as provided in Code Regulations, including IRS Notice 98-1. The Plan may switch to prior year testing (by Plan amendment) only if: (i) the Plan has used current year testing for the lesser of 5 years, or since the Plan has been in effect; or (ii) it is otherwise permitted in Notice 98-1 or subsequent Code Regulations. If a switch is made from current year testing to prior year testing, then the rules in Notice 98-1 (or any subsequent Code Regulations) apply in determining how the Actual Contribution Percentage of Non-Highly Compensated Employees is adjusted in the year of the switch.

"Actual Deferral Percentage" shall mean, with respect to a specified group of Eligible Employees, the average of the Deferral Percentages of the Eligible Employees in each group. The Deferral Percentages are ratios (expressed as percentages) for each Eligible Employee in the group, determined by dividing

(a) the sum of (i) the Tax Deferred Contributions made on behalf of or by the Eligible Employee for the Plan Year, and (ii) qualified non-elective or qualified matching contributions, if any, by

(b) the Eligible Employee's Earnings for that Plan Year.

Such Actual Deferral Percentage shall be computed to the nearest one hundredth of one percent of the Eligible Employee's Earnings.

The Actual Deferral Percentage shall be determined separately with respect to the Bargaining Unit Employees and Non-Bargaining Unit Employees within each of these two groups.

For purposes of determining such ratios, Tax Deferred Contributions on behalf of any Participant shall include any Tax Deferred Contributions made pursuant to a salary reduction agreement, including excess Tax Deferred Contributions of Highly Compensated Employees (as described in Section 3.2(b)), but excluding (1) excess Tax Deferred Contributions of Non-Highly Compensated Employees that arise solely from Tax Deferred Contributions under this Plan or any Plan of the Company; and (2) Tax Deferred Contributions that are taken into account in the Actual Contribution Percentage (provided the Actual Deferral Percentage test described in Section 3.2 is satisfied both with and without exclusion of these Tax Deferred Contributions).

For purposes of computing Actual Deferral Percentages, an Eligible Employee who would be a Participant but for the failure to make a Tax Deferred Contributions shall be treated as a Participant on whose account no Tax Deferred Contributions are made.

The Company elects to compute the Actual Deferral Percentage in accordance with the foregoing formula on the basis of current Plan Year data for Participants, notwithstanding the changes to Code Section 401(k)(3)(A) enacted as part of the Small Business Job Protection Act of 1996. Such election, once made, cannot be revoked except as provided in Code Regulations, including IRS Notice 98-1. The Company can switch the Plan to prior year testing (by Plan amendment) only if: (i) the Plan has used current year testing for the lesser of 5 years, or since the Plan has been in effect; or (ii) it is otherwise permitted in Notice 98-1 or subsequent Code Regulations. If a switch is made from current year testing to prior year testing, then the rules in Notice 98-1 (or any subsequent Code Regulations) apply in determining how the Actual Deferral Percentage of Non-Highly Compensated Employees is adjusted in the year of the switch.

The Actual Deferral Percentage for any Highly Compensated Employee for any Plan Year who is eligible to have pre-tax contributions allocated to his account under one or more plans described in Code Section 401(k) maintained by an Affiliated Company in addition to this Plan shall be determined as if all such contributions were made to this Plan.

"Administrative Committee" shall mean the committee described in Section 12.1.

"Aegis Retirement Contributions" shall mean those retirement contributions made by Aegis, Inc. (known after September 30, 1997 simply as "Aegis", an unincorporated division of the Company) ("Aegis") under the Prior Plan, which were allocated to the Aegis Retirement Contribution Accounts of eligible Aegis Employees in accordance with the Prior Plan. Aegis Retirement Contributions ceased upon the sale of the Aegis business to HCC Industries Inc. ("HCC") in June 2004. The amounts allocated to eligible Aegis Active Participants' Retirement Contribution Accounts under the Prior Plan were invested in the same manner and percentages as the Aegis Participant's other Participant Directed Investments.

"Aegis Retirement Contribution Account" shall mean with respect to an eligible Participant employed by Aegis (or formerly employed by Aegis), that portion of his Account that is attributable to Aegis Retirement Contributions. A Participant's Aegis Retirement Contribution Account balances may only be distributed upon a termination of service, death, disability or retirement, and are not available for withdrawal, in-service distribution or loan.

"Affiliated Company" shall mean

(a) the Company,

(b) each other corporation that is a member of a controlled group of corporations (as defined in Code Section 414(b), i.e., determined in accordance with Code Section 1563(a), without regard to Code Sections 1563(a)(4) and 1563(e)(3)(C), except that the phrase "more than 50 percent" shall be substituted for the phrase "at least 80 percent" wherever it appears in Code Section 1563(a)(1)) that includes the Company,

(c) any trade or business under common control (as defined in Code Section 414(c)) with the Company),

(d) any organization (whether or not incorporated) which is part of an affiliated service group that includes the Company,

(e) any entity required to be aggregated with the Company pursuant to regulations under Code Section 414(o),

(f) any subsidiary of the Company designated as an Affiliated Employer by the Company.

"Bargaining Unit Employee" shall mean an Eligible Employee who is covered under a collective bargaining agreement between employee representatives and a Participating Employer.

"Beneficiary" shall mean such beneficiary or beneficiaries as may be designated from time to time by the Participant, in writing, to the Administrative Committee, to receive, in the event of the Participant's death, the value of his Account at the time of his death. To be effective, the designation must be provided in a form or manner acceptable to the Administrative Committee. In the case of a Participant who is married, the Beneficiary shall be the

Participant’s Spouse unless such Spouse consents in writing on a form witnessed by a Plan representative or notary public to the designation of another person as Beneficiary. The designation of a Spouse as Beneficiary is not automatically revoked, invalidated or changed upon the divorce of such person from a Participant. In the event that a Participant dies without a surviving Spouse and without having in effect at the time of his death a proper Beneficiary designation, his Beneficiary shall be his estate. A Beneficiary shall be deemed a Participant for the limited and exclusive purposes of administering the deceased Participant’s Account and distributing the same.

"Board of Directors" shall mean the board of directors of the Company.

"Code" shall mean the Internal Revenue Code of 1986, as amended from time to time. References to any section of the Code shall include any successor provision thereto and applicable Regulations thereunder. Any term or phrase defined in Code shall, if used herein, be given the same meaning assigned to it by Code unless a different meaning is plainly required by the context.

"Company" shall mean Olin Corporation and any successor thereto by merger, purchase or otherwise.

"Company Contributions" shall mean Matching Contributions, Performance Matching Contributions, Retirement Contributions, Aegis Retirement Contributions and Monarch Retirement Contributions (if any).

"Company Contribution Account" shall mean, with respect to a Participant, that portion of the Participant’s Account that is attributable to Company Contributions (if any).

"Company Stock" shall mean the Company’s common stock, $1.00 par value per share, that is traded on the New York Stock Exchange (or such other applicable national exchange). Company Stock constitutes employer securities within the meaning of Code Section 409(l).

"Compensation" shall mean basic compensation paid to an Eligible Employee for regularly scheduled hours of work rendered to any Participating Employer, prior to reduction for any Tax Deferred Contributions or any salary reduction contributions made to a plan described in Section 125 of the Code. "Compensation" shall exclude any additional compensation such as shift differentials, overtime (other than overtime for hours that are deemed by a Participating Employer to be part of an Eligible Employee’s regularly scheduled hours of work), living and similar allowances and incentive compensation, such as amounts received from bonus plans and from the exercise of a stock appreciation right or stock option. Notwithstanding the foregoing, effective as of January 1, 2008 and solely for purposes of determining the Compensation utilized in the determination of Retirement Contribution amounts under the Plan, Compensation shall be as provided in the first sentence but shall include shift differentials, overtime, and incentive compensation, and exclude (a) any amounts contributed to, or the value of benefits distributed under, the Company’s qualified defined benefit pension plans, this Plan or any other deferred compensation plan or program, (b) any benefits provided under an employee benefit or fringe benefit plan or program, or the taxable value of any fringe benefits, (c) cost of living and similar allowances, (d) amounts paid under a performance unit plan or other long term bonus plan, (e) sign-on and similar bonuses, and (f) other extraneous income. Notwithstanding the foregoing, with respect to Dow Transferees, Compensation shall not include any special cash bonuses or "transition cash payments" provided to Dow Transferees in accordance with the transaction documents which are generally intended to replace the value of certain benefits (including, without limitation, certain defined benefit pension and post-retirement benefits), or portion thereof, that such Dow Transferees were eligible to receive at Dow prior to the Dow Transaction.

For Plan Years beginning on or after January 1, 1994, the maximum amount of annual Compensation that may be taken into account under the Plan shall not exceed $150,000, as adjusted for increases in the cost of living in accordance with Section 401(a)(17)(B) of the Code, as amended from time to time. The Compensation taken into account in determining allocations for any Plan Year beginning after December 31, 2001 shall not exceed $200,000, as adjusted for cost of living increases in accordance with Section 401(a)(17)(B) of the Code. The cost-of-living adjustment in effect for a calendar year applies to any period (such as a Plan Year), not exceeding 12 months, beginning in such calendar year, over which compensation is determined (i.e., a determination period). If a determination period consists of fewer than 12 months, the Compensation limit will be multiplied by a fraction, the numerator of which is the number of months in the determination period, and the denominator of which is 12.

"Current Market Value," shall mean:

(I) on any day

(A) as applied to transactions involving Company Stock,

(i) if shares of Company Stock are sold, the weighted average net share price the Trustee receives for all shares sold on a given date, or, if not all directions to sell can be fully executed on a given date, then the weighted average net share price received over the period necessary to fully execute such direction to sell (the last day of such period being referred to as the "settlement date"), which average shall be based on the average net proceeds per share sold on each day a sale is made in accordance with the direction to sell until the entire amount directed as of the given date to be sold has been sold.

(ii) if shares of Company Stock are purchased (and subparagraph iii is inapplicable), the weighted average price per share (including commissions and other expenses, if any) the Trustee pays for all shares on the date of the purchase, or, if not all directions to purchase can be fully executed on a given date, then the weighted average share price paid over the period necessary to fully execute such direction to purchase (including commissions and other expenses, if any), which shall be based on the average price per share (including commissions and other expenses, if any) paid on each day a purchase is made in accordance with the direction to purchase until such direction has been fully executed.

(iii) if shares of Company Stock are purchased directly from the Company or directly contributed by the Company, whether such shares are treasury stock, authorized and previously unissued shares, or shares previously issued and repurchased by the Company, then the purchase price (or contribution value) shall be the weighted average price per share that the Trustee would pay for shares purchased on the open market (as of the date that contributions are wired to the Trustee, in the case of Participant directed investments); expressly provided, however, that no commissions shall be charged with respect to such purchases (or contributions) and if there are no open market purchases made by the Trustee on such date, then the purchase price per share (or contribution value per share) for such stock shall be the average of the high and low price for Company Stock as reported on the New York Stock Exchange consolidated transaction reporting system on such date.

Directions to purchase and sell shall be batched and delivered to the Trustee on a daily basis, and the net proceeds from actual purchases and sales will be applied to satisfy the oldest batch of outstanding trade directions on a "first in, first out" basis.

(B) as applied to transactions involving other investments permitted under the terms of the Plan, the closing market price as reported by the National Association of Securities Dealers, the New York Stock Exchange consolidated transaction reporting system or such other third-party reporting system or pricing source as the Trustee shall determine is appropriate for the applicable investment

(i) if the recordkeeper receives a direction to buy or sell by 4 p.m. Eastern Time (or such other time established by the record keeper from time to time or for a particular date) on a day the markets are open, on the date the order is received, or

(ii) if the recordkeeper receives an order to buy or sell after such time or the markets are not open on the date on which the instruction is received, as of the next succeeding business date.

(C) for reporting purposes (which includes, but is not limited to, reports provided via Participant Account statements, and the online reporting system (if any) or voice response system (if any) of the recordkeeper), the closing market price of the particular investment, as reported by the applicable third-party reporting system or pricing source, provided, however, that if the last day of the reporting period is not a business day, then the closing market price as of the most recent preceding business day shall be used. Notwithstanding the foregoing,

(i) if a Participant directs that some or all of the Company Stock in his account be sold, the net proceeds of the sale will be credited to his Account, and his Account shall be updated, as of the settlement date based on the Current Market Value described in subparagraph (A)(i) above;

(ii) if a Participant directs the purchase of Company Stock for his account, the Company Stock will be credited to his Account, and his Account shall be updated, as of the settlement date based on the Current Market Value described in subparagraph (A)(ii) above; and

(iii) any transfer of assets into, or out of, other Funds, related to a purchase or sale of Company Stock, will not be effected until the settlement date of such transaction.

"Earnings" shall mean compensation as set forth in Section 414(s) of the Code prior to reduction for any Tax Deferred Contributions or any salary reduction contributions made to a plan described in Section 125 of the Code. For Plan Years beginning on or after January 1, 1994, the maximum amount of Earnings that may be taken into account under the Plan shall not exceed $150,000, as adjusted for increases in the cost of living in accordance with Section 401(a)(17)(B) of the Code, as amended from time to time. The Earnings taken into account for any Plan Year beginning after December 31, 2001, shall not exceed $200,000, as adjusted for cost of living increases in accordance with Section 401(a)(17)(B) of the Code The cost-of-living adjustment in effect for a calendar year applies to any period (such as a Plan Year), not exceeding 12 months, beginning in such calendar year, over which compensation is determined (i.e., a determination period). If a determination period consists of fewer than 12 months, the Earnings limit will be multiplied by a fraction, the numerator of which is the number of months in the determination period, and the denominator of which is 12.

"Effective Date" of the original plan shall mean July 1, 1964.

"Eligible Employee" shall mean any person who is employed (including any officer or director who is also an employee) by and as such is enrolled on the active payroll of a Participating Employer, provided such Employee is also either (i) performing services in the United States or (ii) a citizen of the United States performing services outside the United States at the request of a Participating Employer.

Such term shall not include (unless otherwise determined by the Company) (1) employees of a plant owned by the United States government and operated for the government by a Participating Employer; (2) Employees included in a collective bargaining unit with which an agreement has not been signed respecting the Plan; or (3) any other person who is not considered to be an Employee of the Company or an Affiliated Company by such entity. In all cases of doubt, the Administrative Committee shall decide whether a person is an Eligible Employee as defined herein. In no event shall an individual who is leased from an organization that is not an Affiliated Company to an Affiliated Company and is a Leased Employee be treated as an Eligible Employee for purposes of this Plan. An Eligible Employee shall not include for any purpose of the Plan (a) any individual classified by the Company, Affiliated Company or Participating Employer as an independent contractor in respect of his or her services for the Company, Affiliated Company or Participating Employer; (b) any individual whose compensation for services to the Company, Affiliated Company or Participating Employer is reported on IRS Form 1099 (or any replacement form); (c) any individual whose compensation for services to the Company, Affiliated Company or Participating Employer is paid from a payroll or other account of another employer under contract with the Company, Affiliated Company or Participating Employer; or (d) any individual who is not paid from the Company's, Affiliated Company's or Participating Employer's payroll account or with respect to whom the Company, Affiliated Company or Participating Employer does not issue an IRS Form W-2 (or any replacement form). Such exclusion shall not be affected by the Company's, Affiliated Company's or Participating Employer's misclassification of the individual's employment status, or a determination by a court, government agency, arbitrator, or other authority that the individual is or was a common law employee of the Company, Affiliated Company or Participating Employer, or that the Company, Affiliated Company or Participating Employer is or was a common law employer, joint employer, single employer, or co-employer of the individual. For example, this provision excludes from participation in the Plan workers commonly referred to as contract employees, job-shoppers, independent contractors, consultants, and leased employees (including "leased employees" as that term is used in Code Section 414(n) regardless of whether such leased employees have completed the 12-month waiting period described in Code Section 414(n)).

"ERISA" shall mean the Employee Retirement Income Security Act of 1974, as amended from time to time. References to any section of ERISA shall include any successor provision thereto and any applicable Regulations thereunder. Any term or phrase defined in ERISA shall, if used herein, be given the same meaning assigned to it by ERISA unless a different meaning is plainly required by the context.

"ESOP" shall mean the employee stock ownership plan component of the Plan.

"ESOP Account" shall mean that that portion of a Participant's Account invested in the Olin Common Stock Fund.

"ESOP Loan" shall mean a loan (or other extension of credit) used by the Trustee to finance the acquisition of Company Stock pursuant to Article IV or to refinance an ESOP Loan.

"Five Percent Shareholder" shall mean a person who owns (or is considered to own within the meaning of Section 318 of the Code) more than five percent of the outstanding stock or stock possessing more than five percent of the total combined voting power of all stock of a Participating Employer.

"Former Participant" shall mean any Eligible Employee who participates in the Plan pursuant to Article II, who is no longer employed by an Affiliated Company and who still has an Account under the Plan.

"Fund" shall mean the various investment funds available under the Plan.

"Highly Compensated Employee" shall mean an Eligible Employee who:

(i) was a Five Percent Shareholder during the Plan Year or the previous Plan Year; or

(ii) had Earnings in excess of $80,000 for the previous Plan Year and, effective for Plan Years beginning on and after January 1, 2001, was in the group consisting of the top 20% of Employees when ranked on the basis of compensation paid during such previous Plan Year. The foregoing dollar threshold in (ii), above, shall be adjusted at the same time and in the same manner as the dollar limit on benefits under a defined benefit plan is adjusted pursuant to Section 415(d) of the Code. The dollar threshold for a particular look back year is based on the dollar threshold in effect for the calendar year in which the look back year begins. A former Eligible Employee shall be considered a Highly Compensated Employee if he was a Highly Compensated Employee either for the Plan Year in which his separation from service began or for any Plan Year ending on or after the former Eligible Employee's 55th birthday. The determination of who is a Highly Compensated Employee will be made in accordance with Section 414(q) of the Code and the regulations thereunder.

"Hour of Service" shall mean any hour for which an employee is directly or indirectly paid, or entitled to payment by the Company or another Affiliated Company for the performance of duties.

"Investment Committee" shall mean the committee described in Section 12.2.

"Leased Employee" shall mean any person (other than an employee of the recipient) who pursuant to an agreement between the recipient and any other person ("leasing organization") has performed services for the recipient (or for the recipient and related persons determined in accordance with Section 414(n)(6) of the Code) under the primary direction or control of the recipient on a substantially full-time basis for a period of at least one year.

Contributions or benefits provided for a Leased Employee by the leasing organization that are attributable to services performed for the recipient employer shall be treated as provided by the recipient employer. A Leased Employee shall not be considered an employee of the recipient if: (i) such employee is covered by a money purchase pension plan providing: (1) a nonintegrated employer contribution rate of at least ten percent (10%) of compensation, as defined in Section 415(c)(3) of the Code, but including amounts contributed by the employer pursuant to a salary reduction agreement which are excludable from the employee's gross income under Section 125, Section 402(a)(8), Section 402(h) or Section 403(b) of the Code, (2) immediate participation, and (3) full and immediate vesting; and (ii) leased employees do not constitute more than 20 percent (20%) of the recipient's Non-Highly Compensated Employee workforce.

"Matching Contribution" shall mean a matching contribution (within the meaning of Code Section 401(m)) made by a Participating Employer on behalf of a Participant with respect to Tax Deferred Contributions, Roth 401(k) Contributions and Taxed Contributions, and allocated to a Participant's Company Contribution Account pursuant to Section 5.3.

"Monarch Retirement Contributions" shall mean those retirement contributions made by the Monarch Brass & Copper Corporation, a subsidiary of Olin Corporation, and its affiliates (collectively known as "Monarch") on behalf of certain collectively bargained Employees under the Prior Plan which were allocated to the Monarch Retirement Contribution Accounts of eligible collectively bargained Employees in accordance with the Prior Plan. Monarch Retirement Contributions ceased upon the closing of the New Haven Copper Company in 2007. The amounts so allocated under the Prior Plan were invested in the same manner and percentages as the Monarch Participant's other Participant Directed Investments.

"Monarch Retirement Contribution Account" shall mean with respect to an eligible Participant employed by Monarch, that portion of his Account attributable to Monarch Retirement Contributions. A Participant's Monarch Retirement Contribution Account balances may only be distributed upon a termination of service, death, disability, attainment of age 65, or retirement, and, except as otherwise expressly provided herein, are not available for withdrawal or in-service distribution.

"Non-Bargaining Unit Employee" shall mean an Eligible Employee who is not a Bargaining Unit Employee.

"Non-Highly Compensated Employee" shall mean an Eligible Employee who is not a Highly Compensated Employee.

"Olin Common Stock Fund" means the Fund under the Plan that is 100% invested in Company Stock, provided that (i) cash dividends (net of expenses applied to the Fund) paid on the Company Stock shall be reinvested in Company Stock except as otherwise set forth in the Plan, and (ii) cash and cash equivalents may be kept in the Fund to allow the processing of Fund orders and to pay permitted Plan expenses. Except as otherwise required herein or by applicable law, the Olin Common Stock Fund is intended to remain so invested without regard to (i) the diversification of assets, (ii) the risk profile of investments in Company Stock, (iii) the amount of income provided by Company Stock or (iv) the fluctuation in the fair market value of Company Stock.

"Participant" shall mean any Active Participant or Former Participant (where applicable).

"Participant Directed Investments" shall mean the manner and percentages in which a Participant directs investments with respect to his Tax Deferred Contribution Account, or in the manner as directed by the Participant with respect to his Taxed Contribution Account (or if applicable, Roth 401(k) Contribution Account, or Company Contribution Account), in the event he is not making contributions to a Tax Deferred Contribution Account. If a Participant fails to make an investment election as provided in the preceding sentence, then with regard to his or her contributions (including all automatic deferrals described in Article III of the Plan), such Participant shall be deemed to have elected to have such contributions invested in the Plan's age-based retirement Fund with the date closest to the Participant's anticipated retirement date (or such other Fund as may be designated by the Investment Committee and communicated to Participants from time to time by the Administrative Committee in accordance with any applicable laws).

"Participating Employer" shall mean the Company, and any other Affiliated Company which has been designated as participating in the Plan by the Company. Each Participating Employer, including, without limitation, Olin Dow Subsidiary, Monarch, Pioneer, Winchester Ammunitions, Chlor Alkali Logistics, and KA Steel, and each Affiliated Company of the Company and such Participating Employers, shall be deemed to have authorized the Company and the named fiduciaries to act for it in all matters arising under or with respect to the Plan, including the right of the Company to amend the Plan for all Participating Employers, and shall be deemed to have agreed to comply with such other terms and conditions concerning the Plan as may be imposed by such entities.

"Performance Matching Contribution" shall mean a matching contribution (within the meaning of Code Section 401(m)) made by a Participating Employer on behalf of a Participant with respect to Tax Deferred Contributions and Taxed Contributions, and allocated to a Participant's Company Contribution Account pursuant to Section 5.4.

"Period of Continuous Service" shall mean:

(a) prior to July 1, 1976, the Participant's period of continuous participation in the Plan to July 1, 1976, and the waiting period in effect with respect to such Participant; and

(b) from July 1, 1976, the aggregate period or periods beginning on July 1, 1976, or the date on which the Participant is first credited with an Hour of Service (or his reemployment commencement date), if later, and ending on his next following Severance from Service Date. In addition, effective July 1, 1976, (i) if an individual incurs a Severance from Service Date as the result of a voluntary termination, discharge or retirement and he returns to service within 12 months of his Severance from Service Date, or (ii) if during an absence from service for any reason other than a voluntary termination, discharge or retirement, he incurs a Severance from Service Date as the result of a voluntary termination, discharge or retirement and he returns to service within 12 months of the date on which he was first absent from service, the period during which he is absent from service shall be included in his Period of Continuous Service.

If an individual incurs a Period of Severance, his Period of Continuous Service shall not include his service prior to such Period of Severance if (a) the individual was not vested in any portion of his Company Contribution Account and the Period of Severance equaled or exceeded the greater of five years or his prior Period of Continuous Service or (b) the individual does not complete a one year Period of Continuous Service after his reemployment commencement date. In addition, any period ending on or before July 1, 1985 that was disregarded as of that date under the break in service provisions in effect immediately prior to such date shall also not be included in the Participant's Period of Continuous Service. Under such rules and conditions which shall be uniform in their nature and application to all Participants similarly situated, a Period of Continuous Service may be credited by the Administrative Committee during a period of absence from service.

With respect to Participants employed by Monarch on June 8, 2001 when Olin acquired the Monarch Brass and Copper Company, Periods of Continuous Service under this Plan shall include all service credited to Participants under the terms of the stock bonus plans of Monarch, as of the date of its acquisition by the Company.

In the event an individual who was a Leased Employee within the meaning of Section 414(n)(2) of the Code becomes an Eligible Employee and an Affiliated Company was the recipient of such individual's services as a Leased Employee, his prior employment as a Leased Employee shall be credited as part of his Period of Continuous Service.

Effective for reemployments commencing on or after December 12, 1994, service credit with respect to qualified military service will be provided in accordance with Section 414(u) of the Code and the mandatory provisions of the Heroes Earnings Assistance and Relief Tax Act of 2008 ("Heart Act") as of the effective dates specified for such provisions in that act. Accordingly, if an Employee in qualified military service returns to employment with the Company during the time that his re-employment rights are protected, then he shall receive credit for Periods of Continuous Service for the period of his qualified military service. Such Employee shall be permitted to make up Tax Deferred Contributions, Roth 401(k) Contributions or Taxed Contributions (i) with respect to the period of his qualified military service, within a time period not exceeding the lesser of (I) three times the length of his qualified military leave or (II) five years, and (ii) in accordance with the mandatory provisions of the Heart Act as of the effective dates specified for such provisions in that act. If the Employee makes up such contributions on a timely basis, then the applicable Participating Employer shall make-up any related Company Contributions.

With respect to unpaid family and medical leave, contributions, benefits and service credit will be provided in accordance with 29 CFR Section 825.215, effective for leaves commencing on or after August 5, 1993. During an unpaid medical or family leave under the FMLA, the Participant shall not incur any Break in Service, and shall receive credit for Periods of Continuous Service.

"Period of Severance" shall mean the period of time commencing on an individual's Severance from Service Date and ending on the date on which he again performs an Hour of Service.

"Plan" shall mean the Olin Corporation Contributing Employee Ownership Plan (known prior to June 12, 1989, as the Olin Employee Incentive Thrift Plan), as set forth herein and as amended from time to time.

"Plan Year" shall mean the twelve-month period from January 1 through December 31.

"Prior Plan" means the Olin Corporation Contributing Employee Ownership Plan as in effect prior to the Restatement Effective Date at such applicable time as determined by the context.

"QDRO" shall mean a domestic relations order that is determined to be a qualified domestic relations order, as defined in Section 414(p)(1) of the Code.

"Regulations" shall mean the regulations and other interpretive guidance, procedures, notices, announcements and bulletins issued pursuant to the Act or the Code, as the case may be.

"Required Beginning Date" shall mean, effective as of January 1, 1997, April 1st of the calendar year following the later of the calendar year in which the Participant (1) attains age 70 1/2 or (2) terminates employment; provided however that

(a) with respect to any Five Percent Owner, the "Required Beginning Date" shall be determined without regard to clause (2) above, and

(b) with respect to any Active Participant who reached age 70 ½ during 1996, 1997 or 1998, such Participant's Required Beginning Date shall be April 1 of the calendar year following the year in which the Participant reaches age 70 ½, unless the Participant elects to defer the commencement of his benefits until his actual retirement.

(c) A Participant is a "Five Percent Owner" if such Participant is a 5 percent owner as defined in Code Section 416(i) at any time during the Plan Year ending with or within the calendar year in which such owner reaches age 66 1/2 or in any subsequent Plan Year.

"Retirement" shall mean retirement under any qualified defined benefit retirement pension plan of a Participating Employer on or after the attainment of age 55 or termination of employment for any reason of an Active Participant who is entitled to a fully vested retirement allowance under any such retirement plan of a Participating Employer.

"Retirement Contributions" shall mean those contributions made by the applicable Participating Employer on behalf of certain eligible Employees under Section 3.4(e) of the Plan, which are allocated to the Retirement Contribution Accounts of such eligible Employees in accordance with the formula contained in Section 5.7 of the Plan.

"Retirement Contribution Account" shall mean with respect to an eligible Participant described in Section 5.7, that portion of his Account attributable to Retirement Contributions.

"Rollover Contribution Account" shall mean, with respect to any Participant, that portion of his Account that is attributable to Rollover Contributions and prior plan transfers made on behalf of the Participant.

"Rollover Contributions" shall mean the amounts transferred to the Plan by a Participant as provided in Section 3.6.

"Roth 401(k) Contribution Account" shall mean, with respect to any Participant, that portion of his Account that is attributable to his Roth 401(k) Contributions.

"Roth 401(k) Contributions" shall mean the contributions made to the Plan by a Participant as provided in Section 3.8.

"Severance from Service Date" shall mean the earlier of (a) the date the employee quits, is discharged, retires, or dies and (b) the first anniversary of the first date of a period in which an employee remains absent from service for any other reason. Notwithstanding the foregoing, if the employee has been granted a leave of absence or layoff and the date of termination of such leave or layoff occurs after the first anniversary of his absence from service under clause (b) above, such termination date will be the Severance from Service Date. Effective for reemployments commencing on or after December 12, 1994, service credit with respect to qualified military service will be provided in accordance with Section 414(u) of the Code. Additionally, service credit with respect to qualified military service will be provided in accordance with the mandatory provisions of the Heart Act as of the effective dates specified for such provisions in that act.

In the event an employee is absent from service beyond the first anniversary of the first date of absence occurring;

(a) as a result of the pregnancy of the employee, the birth of a child of the employee, the placement of a child with the employee by reason of adoption or for purposes of caring for a child of the employee immediately following the child's birth or adoption, or

(b) on or after January 1, 1993, by reason of the placement of a child with the Employee in connection with the foster care of any such child by the Employee, for the purposes of caring for any such child during the period immediately following such child's foster care placement, because the employee is needed to care for a family member with a serious health condition, or because the employee's own serious health condition makes the employee unable to perform the functions of his job, then a Severance from Service Date shall not occur until the second anniversary of the separation from service.

The period between the first and second anniversary of the first date of such absence from service shall not count either as a Period of Continuous Service or a Period of Severance.

"Spouse" shall mean the individual to whom a Participant is validly married, as recognized under applicable state law (and as construed in accordance with applicable Department of Labor and Treasury guidance, including Internal Revenue Service Notice 2014-19).

"Tax Deferred Contribution Account" shall mean, with respect to any Participant, that portion of his Account that is attributable to (a) Tax Deferred Contributions made on his behalf, and (b) any qualified non-elective or qualified matching contributions treated as Tax Deferred Contributions under Section 3.2.

"Tax Deferred Contributions" shall mean employer contributions made to the Plan at the election of a Participant, in lieu of unreduced compensation, pursuant to a salary reduction agreement or other deferral mechanism, as provided in Section 3.1.

"Taxed Contribution Account" shall mean, with respect to any Participant, that portion of his Account attributable to his Taxed Contributions (plus any qualified non-elective contributions treated as Taxed Contributions, if any).

"Taxed Contributions" shall mean employee voluntary after-tax contributions made to the Plan by a Participant as provided in Section 3.3 and which are not designated as Roth 401(k) Contributions under Section 3.8.

"Total and Permanent Disability" shall mean a disability incurred by a Participant, who as a result of such disability, is eligible to receive total and permanent disability benefits under a plan providing long term disability benefits maintained by a Participating Employer, or if not eligible to participate in such a plan at the time of the purported disability, is receiving disability benefits under the Social Security Act or is unable to perform or be trained for any job for which the Participant is reasonably suited or for which he is qualified by education, training or experience. Any question as to whether a Participant is, or continues to be, Totally and Permanently Disabled shall be determined by the Administrative Committee.

"Trust Agreement" shall mean the agreement or agreements between the Company and the Trustee, as amended from time to time, pursuant to which the Plan is funded.

"Trustee" shall mean the trustee or trustees acting as such under the Trust Agreement or Trust Agreements in effect from time to time.

"Valuation Date" shall mean each date on which Current Market Value is determined.

"Year of Service" shall mean any 12 month Period of Continuous Service.

ARTICLE II

PARTICIPATION

2.1 On the Restatement Effective Date. Any Eligible Employee who was an Active Participant in the Plan immediately prior to its restatement, shall be an Active Participant in the restated Plan on its Restatement Effective Date, provided he is still an Eligible Employee. Subject to Article III, the rate of Tax Deferred Contributions, Roth 401(k) Contributions, and Taxed Contributions immediately prior to the Restatement Effective Date shall be the same as of the Restatement Effective Date, and may be changed as provided in Article III.

2.2 After the Restatement Effective Date. Any other Eligible Employee may become an Active Participant as soon as practicable after completing the enrollment procedure prescribed by the Administrative Committee without satisfying a waiting period or after being automatically enrolled as described in Section 3.1.

ARTICLE II

PARTICIPATION

3.1 Tax Deferred Contributions.

(a) Subject to the provisions of this Section 3.1 and Section 3.2, each Active Participant may elect to have his Compensation reduced by from 1% to 80% (in whole integers) during the period in which such Compensation is paid and have that amount contributed to the trust fund by his Participating Employer on his behalf. At any time, the Administrative Committee may reduce the rate of future Tax Deferred Contributions to be made on behalf of Active Participants who are Highly Compensated Employees in order to satisfy the test described in Section 3.2. If the Compensation of an Active Participant is changed, the dollar amount of his Tax Deferred Contributions will automatically be changed so that the percentage elected is not changed.

(b) In no event shall the Tax Deferred Contributions and Roth 401(k) Contributions when added to all other elective deferral contributions (within the meaning of Code Section 402(g)(3)) made on behalf of any Active Participant under any plan maintained by an Affiliated Company for any calendar year exceed the maximum dollar amount as determined by the Commissioner of Internal Revenue pursuant to Code Section 402(g) for such calendar year. In the event the foregoing dollar limitation is exceeded for any calendar year, the excess Tax Deferred Contributions and Roth 401(k) Contributions, plus the pro rata share of income and losses thereon, determined as of the distribution date in accordance with regulations issued by the Secretary of the Treasury, shall be distributed to the Participant on whose behalf such contribution was made by April 15 of the following calendar year. To the extent there is an excess distribution to a Participant, and such Participant does not elect a method of receiving such excess, excess distributions will first come from Roth 401(k) Contributions (if applicable) and then Tax Deferred Contributions (if applicable). Excess distributions made after April 15^{th} of the following calendar year will be taxable as provided under the Code.

(c) Subject to the following, an Active Participant eligible to have Tax Deferred Contributions made on his behalf may elect to completely suspend such contributions or to change the percentage of the reduction in his Compensation. Such election shall be made at such time and in such manner as the Administrative Committee shall determine, and shall be effective only in accordance with such rules as shall be established from time to time by the Administrative Committee.

(i) For Eligible Employees hired on or after November 1, 2006, and provided that such newly hired Eligible Employee during the Opt Out Period does not make a contrary election (such as electing to not participate in the Plan, or electing to participate in the Plan at an earlier or different time, or electing a different Tax Deferred Contribution percentage), such Eligible Employee shall participate in the Plan as soon as administratively feasible on or after the expiration of the Opt Out Period and the percentage of the reduction in his Compensation shall be set at 6%. Such Tax Deferred Contribution rate may be changed in accordance with applicable Plan terms. The manner and form for making a contrary election during the Opt Out Period shall be set by the Administrative Committee, and the default investment for such contributions (to the extent the Participant does not provide affirmative investment direction) shall be an age-based retirement Fund with the date closest to the Participant's anticipated retirement date (assuming such person retires at age 65) (or such other Fund as may be designated by the Investment Committee). For purposes of this Section 3.1(c)(i), the term "Opt Out Period" refers to the thirty-day period commencing on the Eligible Employee's date of hire (or such other period determined and communicated by the Administrative Committee).

(d) Tax Deferred Contributions for any month will be paid by the Active Participant's Participating Employer to the trust fund as soon as feasible after the end of each pay period, but in no event later than fifteen (15) business days following the end of the month with respect to which such amounts are withheld.

(e) Effective with respect to Tax Deferred Contributions made in Plan Years commencing on or after January 1,2002 (and Roth 401(k) Contributions made in Plan Years commencing after 2008), and notwithstanding the limitations in Section 3.1(b) above, all Employees eligible to make such contributions who have attained age 50 before the close of the Plan Year shall be eligible to make additional contributions in accordance with and subject to the limitations of Section 414(v) of the Code ("Catch-Up Contributions"). Such Catch-up Contributions shall not be taken into account for purposes of the provisions of the Plan implementing the required limitations of Sections 402(g) and 415 of the Code. The Plan shall not be treated as failing to satisfy the provisions of the Plan implementing the requirements of Section 401(k)(3), 401(k)(1l), 401(k)(12), 410(b) or 416 of the Code, as applicable, by reason of the making of such Catch-up Contributions. As elected by a Participant in a manner and form determined by the Administrative Committee, Catch-up Contributions shall be treated as (i) Tax Deferred Contributions and shall be allocated to Active Participants' Tax Deferred Contribution Accounts, or (ii) Roth 401(k) Contributions and shall be allocated to Active Participants' Roth 401(k) Contribution Accounts. Catch-Up Contributions shall be unmatched. Catch-up Contributions shall not be considered Salary Reduction Contributions for purposes of the Average Deferral Percentage test of Section 3.2 of the Plan. The extent to which an Active Participant's Tax Deferred Contributions and Roth 401(k) Contributions are characterized as Catch-Up Contributions, rather than Taxed Contributions, or Excess Contributions otherwise subject to the various Plan and Code limitations, shall be determined by the Administrative Committee as of the end of the Plan Year, in accordance with Code Section 414(v) and regulations issued thereunder.

3.2 Limitation on Tax Deferred Contributions. The Administrative Committee shall make the following determinations separately with respect the Bargaining Unit Employees and Non-Bargaining Unit Employees, and further separately as determined by Section 3.9. To the extent provided by applicable law, and subject to the prior sentence, the following provisions of this Section 3.2 shall not apply for any Plan Year in which this Plan meets the applicable requirements for a "safe harbor" plan with respect to the below testing.

(a) If the Tax Deferred Contributions (plus any qualified non-elective or qualified matching contributions treated as Tax Deferred Contributions) made on behalf of the Highly Compensated Employees for any Plan Year are in excess of the amount permitted under the following provisions for such Highly Compensated Employees, such excess contributions plus the pro rata share of income and losses thereon determined as of the distribution date (or effective for Plan Years after December 31, 2007, as of the end of such Plan Year) in accordance with regulations issued by the Secretary of the Treasury shall be distributed to such Highly Compensated Employees by the end of the following Plan Year and, if possible, before the close of the first two and one half months of the following Plan Year. Alternatively, with respect to such Plan Year, the Company may, in its discretion, make qualified non-elective and qualified matching contributions, as defined in Treas. Reg. Section 1.401(k)-1(g)(13), subject to the requirements for full vesting and the Code Section 401(k) withdrawal restrictions, as may be necessary for the following provisions of this section to be satisfied. Any qualified non-elective and qualified matching contributions treated as Tax Deferred Contributions for purposes of satisfying the provisions of this section shall not be taken into account for purposes of satisfying the average contribution percentage test of Code Section 401(m) as provided in Section 3.5 hereof.

(b) All or a portion of the Tax Deferred Contributions (plus any qualified non-elective or qualified matching contributions treated as Tax Deferred Contributions) for Highly Compensated Employees shall be deemed to be excessive for the then current Plan Year if the Actual Deferral Percentage for such Highly Compensated Employees exceeds the greater of (i) or (ii) below:

(i) the product of the Actual Deferral Percentage for all Eligible Employees (other than Highly Compensated Employees) who are eligible to have Tax Deferred Contributions made on their behalf multiplied by 1.25, or

(ii) the product of the Actual Deferral Percentage for all Eligible Employees (other than Highly Compensated Employees) who are eligible to have Tax Deferred Contributions made on their behalf multiplied by 2.0; provided, however, that the product described in this clause (ii) shall be limited to the sum of the Actual Deferral Percentage for all Eligible Employees (other than Highly Compensated Employees) plus two percentage points.

(c) In the event any portion of a Participant's Tax Deferred Contributions are distributed pursuant to Section 3.1(b) as a result of the dollar limit applicable to Tax Deferred Contributions pursuant to Code Section 402(g), (i) any excess contributions required to be distributed pursuant to Section 3.2(b) shall be reduced by the amount of such excess deferrals and (ii) such Participant's Actual Deferral Percentage shall be determined before such excess deferral is distributed if the Participant is a Highly Compensated Employee.

(d) Notwithstanding the foregoing, the Administrative Committee may, in its discretion, permit a Participant with excess contributions that would otherwise be distributed pursuant to Section 3.2(b), above, to elect to have all or part of such excess contribution recharacterized as a Taxed Contribution; provided, however, that (i) such recharacterization shall occur within 2 1/2 months after the close of the Plan Year to which the excess contribution relates; (ii) the recharacterized amounts shall be reported by the Company as includible in the Participant's taxable income as of the earliest date any Tax Deferred Contribution made on behalf of the Participant during the Plan Year would have been received by the Participant but for the Participant's election to defer; (iii) the recharacterized amount shall continue to be treated as an employer contribution for purposes of the deduction rules of Code Section 404, the annual additions limits of Code Section 415 and certain other purposes stated in Treas. Reg. Section 1.401(k)-1(f)(3)(ii); (iv) the recharacterized amounts shall continue to be subject to the distribution and nonforfeitability rules applicable to Tax Deferred Contributions and other elective contributions under Code Section 401(k); (v) the recharacterized amounts shall be taken into account for purposes of the average contribution percentage test of Code Section 401(m), as provided in Section 3.5 of the Plan; and (vi) the election to recharacterize shall be subject to such uniform, generally applicable administrative procedures as determined by the Administrative Committee. For Plan Years commencing on or after January 1, 2002, the Administrative Committee may in its discretion recharacterize Excess Tax Deferred Contributions that would otherwise be distributed pursuant to this Section 3.2 as Catch-up Contributions in accordance with Section 3.1(e) hereof and Section 414(v) of the Code, provided that the applicable dollar amount has not already been met for the calendar year.

(e) The amount of Tax Deferred Contributions to be distributed pursuant to paragraph (a) above shall be determined by making the following adjustments to the Tax Deferred Contributions for Participants who are Highly Compensated Employee so that after adjustment one of the two tests of paragraph (b), above, is met and the excess Tax Deferred Contributions have been reduced to zero.

(i) Each Participant who is a Highly Compensated Employee, beginning with the Participant having the highest dollar deferral, shall have Tax Deferred Contributions in excess of the permissible deferral percentage limits ("Excess Contributions") returned to such Participant (together with income or loss allocable thereon as determined under Code Section 401(k)) until such Participant's Tax Deferred Contributions are reduced to the dollar amount of the Tax Deferred Contributions of the Highly Compensated Employee with the next highest dollar amount of Tax Deferred Contributions and continuing in descending order with the next Highly Compensated Employee with the next highest dollar deferral, until one of the tests described in paragraph (b) is satisfied. If such amounts are distributed more than two and one-half (2-1/2) months after the last day of the Plan Year in which the excess arose, a ten percent (10%) excise tax will be imposed on the Company. Such distributions shall be made to Highly Compensated Employees on the basis of the respective portions of the Excess Contributions attributable to each such Employee. Determination of income or loss for Excess Contributions up to the date of distribution (or effective for Plan Years after December 31, 2007, as of the end of such Plan Year) shall be made in the same manner as income or loss for excess Tax Deferred Contributions that exceed the limit of Code Section 402(g).

(ii) Excess Contributions shall be determined under the following procedures:

(1) calculate the dollar amount of Excess Contributions for each affected Highly Compensated Employee as follows:

(A) Rank all Highly Compensated Employees in descending order based on their Actual Deferral Percentage and then reduce the Actual Deferral Percentage of the Highly Compensated Employee with the highest Actual Deferral Percentage by the amount required to cause such Highly Compensated Employee's Actual Deferral Percentage to equal the Actual Deferral Percentage of the Highly Compensated Employee with the next highest Actual Deferral Percentage (or, if less, by the reduction necessary to enable the Plan to satisfy one of the two tests described in paragraph (b), above);

(B) Repeat the process in (A) above with respect to all Highly Compensated Employees with the next highest Actual Deferral Percentage, until the Plan satisfies one of the two tests described in paragraph (b), above, and the highest permitted Actual Deferral Percentage is determined;

(C) The amount of Excess Contributions for each Highly Compensated Employee shall be an amount equal to such Highly Compensated Employee's Tax Deferred Contributions (plus any qualified nonelective contributions or qualified matching contributions taken into account in determining such Highly Compensated Employee's Actual Deferral Percentage prior to applying (A) and (B) above), minus an amount determined by multiplying such Highly Compensated Employee's Actual Deferral Percentage, determined after applying (A) and (B) above, by the Compensation used in determining such Highly Compensated Employee's Actual Deferral Percentage;

(2) Determine the total of the dollar amounts (total Excess Contributions) calculated in Step (1);

(3) Distribute the total Excess Contributions determined in (2) above as follows:

(A) Rank all Highly Compensated Employees in descending order based on the dollar amount of their Tax Deferred Contributions and reduce the Tax Deferred Contributions of the Highly Compensated Employee with the highest dollar amount of Tax Deferred Contributions by the amount required to cause that Highly Compensated Employee's Tax Deferred Contributions to equal the dollar amount of the Tax Deferred Contributions of the Highly Compensated Employee with the next highest dollar amount of Tax Deferred Contributions.

(B) Distribute the amount determined in (A) above to the Highly Compensated Employee with the highest dollar amount until all Excess Contributions are consumed, or until the Tax Deferred Contributions of this Participant are reduced to the dollar amount of the Highly Compensated Employee with the next highest dollar amount of Tax Deferred Contributions;

(4) If the total amount distributed under (3) above is less than the Total Excess contributions, repeat step (3).

(iii) Notwithstanding the foregoing, the amount of Excess Contributions to be distributed under this Section 3.2(e) with respect to a Highly Compensated Employee for a Plan Year is reduced by any excess deferrals previously distributed to such Employee for the Employee's taxable year ending with or within the Plan Year, and the amount of excess deferrals to be distributed under this Section 3.2(e) with respect to a Highly Compensated Employee for a Plan Year is reduced by any Excess Contributions previously recharacterized or distributed to such Employee for the Employee's taxable year ending with or within the Plan Year.

In the event a Participant's Tax Deferred Contributions are distributed to the Participant pursuant to Section 3.1 as a result of being in excess of the dollar limitation applicable to such contributions or pursuant to this Section 3.2, the value of any related matching contribution (within the meaning of Code Section 401(m)) plus the pro rata share of income and losses thereon, determined in accordance with regulations issued by the Secretary of the Treasury, shall be forfeited by the Participant.

In the event this Plan must be combined with one or more plans in order to satisfy the requirements of Sections 401(a)(4) or 410(b) of the Code (other than the average benefits test described in Code Section 401(b)(2)(A)(ii)), then all cash or deferred arrangements subject to Code Section 401(k) that are included in such plans shall be treated as a single arrangement for purposes of this Section 3.2.

3.3 Taxed Contributions.

(a) Subject to the provisions of Section 3.5, an Active Participant may elect to contribute Taxed Contributions to the trust fund by authorizing monthly payroll deductions of from 1% to 80% (in whole integers) of his Compensation. An Active Participant's Taxed Contributions may not exceed the difference between (i) 80% of his Compensation and (ii) the percentage of his Compensation contributed as a Tax Deferred Contribution and Roth 401(k) Contribution. At any time, the Administrative Committee may reduce the rate of future Taxed Contributions to be made by Highly Compensated Employees in order to satisfy the test described in Section 3.5. If the Compensation of an Active Participant is changed, the dollar amount of his Taxed Contributions will automatically be changed so that the percentage elected is not changed. In the event an Active Participant's Tax Deferred Contributions and Roth 401(k) Contributions are limited as provided in Section 3.1(b) due to Code Section 402(g), and such Active Participant is not contributing Taxed Contributions at such time, Taxed Contributions shall be made to the Active Participant's Account for the remainder of the Plan Year (subject to other applicable Plan provisions) at the same percentage that was in place at such time for the Tax Deferred Contributions and Roth 401(k) Contributions.

(b) An Active Participant may elect to completely suspend such contributions or to change the percentage of his Taxed Contributions. Such election shall be made at such time and in such manner as the Administrative Committee shall determine, and shall be effective only in accordance with such rules as shall be established from time to time by the Administrative Committee.

(c) Taxed Contributions for any month will be paid by the Active Participant's Participating Employer to the trust fund as soon as feasible after the end of each pay period but in no event later than fifteen (15) business days following the end of the month with respect to which such amounts are withheld.

3.4 Employer Contributions.

(a) Participating Employer Contributions.

(i) [Reserved]

(ii) Required Matching Contributions. Each Participating Employer shall contribute an amount sufficient to provide the allocations described in Section 5.3(a), 5.4(a) and 5.4(b) with respect to its eligible Active Participants. Effective October 17, 2003, such contributions shall be made in cash, provided, however, that the Company may still make such contribution in Company Stock for those Participants who elect to invest in the Olin Common Stock Fund. Such contributions shall not be made on behalf of collectively bargained Employees, including without limitation those employed by Monarch and its affiliates, unless otherwise provided pursuant to collective bargaining. In the event that such Participant's matched Tax Deferred Contributions and Roth 401(k) Contributions are later recharacterized as Catch-up Contributions, and the Participant is not entitled to a Company Contribution on such Catch-Up Contributions in accordance with Section 3.1(e), the related Company Contributions (and earnings thereon), if any, shall be forfeited by such Participant, to the extent then forfeitable.

(iii) Additional Discretionary Matching Contributions. With respect to a Plan Year and subject to the applicable Code limits, each Participating Employer may make such additional discretionary Matching Contributions for the benefit of its Active Participants, in cash, (provided, however, that the Company may make such contributions in Company Stock for those Participants who elect to invest in the Olin Common Stock Fund) as the Company shall, in its discretion determine, with such contribution being allocated to its Active Participants in the same manner as the Matching Contributions provided for in Section 5.3(a). Such contributions shall not be made on behalf of collectively bargained Employees unless otherwise provided pursuant to collective bargaining.

(b) [Reserved.]

(c) [Reserved.]

(d) [Reserved.]

(e) Retirement Contributions. Each Participating Employer shall contribute an amount sufficient to provide the allocations described in Section 5.7 with respect to its eligible Employees. These Retirement Contributions shall be allocated to such eligible Employees in accordance with the formula set forth in Section 5.7, regardless of whether they are otherwise Participants under the Plan immediately prior to such time. Such contributions shall be made in cash, provided, however, that the Company may still make such contribution in Company Stock for those Participants who elect to invest in the Olin Common Stock Fund.

3.5 Limitation on Taxed Contributions and Company Contributions. The Administrative Committee shall make the following determinations separately with respect to the Bargaining Unit Employees and Non-Bargaining Unit Employees, and further separately as determined by Section 3.9. To the extent provided by applicable law, and subject to the prior sentence, the following provisions of this Section 3.5 shall not apply for any Plan Year in which this Plan meets the applicable requirements for a "safe harbor" plan under the Code with respect to the below testing.

(a) If the aggregate of Taxed Contributions and the fair market value of the Company Contributions that are matching contributions within the meaning of Code Section 401(m) allocated to the Highly Compensated Employees for any Plan Year are in excess of the amount permitted under the following provisions for such Highly Compensated Employees, such excess amounts plus the pro rata share of income and losses thereon, determined as of the distribution date (or effective for Plan Years after December 31, 2007, as of the end of such Plan Year) in accordance with regulations issued by the Secretary of the Treasury, shall be forfeited to the extent such contributions are not vested, and to the extent such contributions are vested, they shall be distributed by the end of the following Plan Year and, if possible, before the close of the first two and one half months of the following Plan Year. Alternatively, if the Average Contribution Percentage test is. applied using the ACP percentages of Non-Highly Compensated Employees for the current Plan Year, then with respect to such Plan Year, the Company may, in its discretion, make qualified non-elective contributions, as defined in Treas. Reg. Section 1.401(m)-1(f)(15), subject to the requirements for full vesting and the Code Section 401(k) withdrawal restrictions, as may be necessary for the following provisions of this section to be satisfied. Any qualified non-elective contributions treated as Taxed Contributions for purposes of satisfying the provisions of this section shall not be taken into account for purposes of satisfying the average deferral percentage test of Code Section 401(k) as provided in Section 3.2 hereof.

(b) All or a portion of the aggregate of Taxed Contributions and the fair market value of the Company Contributions that are matching contributions within the meaning of Code Section 401(m) allocated to Highly Compensated Employees shall be deemed to be excessive for the then current Plan Year if the Actual Contribution Percentage for such Highly Compensated Employees exceeds the greater of (i) or (ii) below:

(i) the product of the Actual Contribution Percentage for all Eligible Employees other than Highly Compensated Employees multiplied by 1.25, or

(ii) the product of the Actual Contribution Percentage for all Eligible Employees other than Highly Compensated Employees multiplied by 2.0; provided, however, that the product described in this clause (ii) shall be limited to the sum of the Actual Contribution Percentage for all Eligible Employees other than Highly Compensated Employees plus two percentage points.

In the event the test described in Section 3.2(b) is satisfied using the "2.0/two point" test described in Section 3.2(b)(ii),then with respect to Plan Years commencing prior to January 1, 2002, the Actual Contribution Percentage described in this Section 3.5(b) for Highly Compensated Employees shall be reduced to the extent necessary to satisfy the "multiple use" aggregate limit described in the following sentence. The "multiple use" aggregate limit shall equal whichever of (A) or (B) is greater:

(A) the sum of (i) 1.25 multiplied by the greater of the Actual Contribution Percentage or the Actual Deferral Percentage for the Plan Year for all Eligible Employees other than Highly Compensated Employees plus (ii) the lesser of the Actual Contribution Percentage or the Actual Deferral Percentage for the Plan Year for all Eligible Employees other than Highly Compensated Employees plus two percentage points; provided, however, that the amount determined under this clause (ii) may not exceed the product of 2.0 multiplied by the lesser of the Actual Contribution Percentage or the Actual Deferral Percentage for all Eligible Employees other than Highly Compensated Employees; or

(B) the sum of (i) 1.25 multiplied by the lesser of the Actual Contribution Percentage or the Actual Deferral Percentage for the Plan Year for all Eligible Employees other than Highly Compensated Employees plus (ii) the greater of the Actual Contribution Percentage or the Actual Deferral Percentage for the Plan Year for all Eligible Employees other than Highly Compensated Employees plus two percentage points; provided, however, that the amount determined under this clause (ii) may not exceed the product of 2.0 multiplied by the greater of the Actual Contribution Percentage or the Actual Deferral Percentage for all Eligible Employees other than Highly Compensated Employees.

The multiple use test described above and in Treasury Regulation Section 1.401(m)-2 shall not apply for Plan Years beginning after December 31, 2001.

(c) An Eligible Employee's Actual Contribution Percentage shall be determined before his or her excess Tax Deferred Contributions (and other amounts subject to Code Section 401(k) restrictions) are distributed and the value of the related Company Contributions are forfeited.

(d) The amount to be distributed or forfeited pursuant to paragraph (a), above, shall be determined by making the reducing the amount of the aggregate of the Taxed Contributions plus any matching contributions within the meaning of Code Section 401(m) ("Excess Aggregate Contributions") of Participants who are Highly Compensated Employees so that after adjustment one of the two tests of paragraph (b), above (including the multiple use aggregate limit, if applicable), is met and the Excess Aggregate Contributions have been reduced to zero. To the extent possible, a Highly Compensated Employee's Excess Aggregate Contributions shall be reduced by distributing Taxed Contributions before matching contributions within the meaning of Code Section 401(m).

(i) Each Participant who is a Highly Compensated Employee, beginning with the Participant having the greatest Excess Aggregate Contributions, shall have his Excess Aggregate Contributions (together with income or loss allocable thereon determined in the same manner as for excess Tax Deferred Contributions under Section 3.2 of the Plan) reduced until his Aggregate Contributions are reduced to the Aggregate Contributions of the Highly Compensated Employee with the next highest Aggregate Contributions, and continuing as necessary until one of the two tests described in paragraph (b) is satisfied. Such reductions shall be made to each Highly Compensated Employee on the basis of the respective portions of the Excess Aggregate Contributions attributable to each such Highly Compensated Employee.

(ii) The total Excess Aggregate Contributions to be forfeited or distributed shall be determined under the following procedure:

(1) Calculate the dollar amount of Excess Aggregate Contributions for each affected Highly Compensated Employee as follows:

(A) Rank all Highly Compensated Employees in descending order based on their Actual Contribution Percentage and then reduce the Actual Contribution Percentage of the Highly Compensated Employee with the highest Actual Contribution Percentage by the amount required to cause such Highly Compensated Employee's Actual Contribution Percentage to equal the Actual Contribution Percentage of the Highly Compensated Employee with the next highest Actual Contribution Percentage or, if less, by the reduction necessary to enable the Plan to satisfy one of the two tests described in paragraph (b), above.

(B) Repeat the process in (A), above, with respect to the Highly Compensated Employee with the next highest Actual Contribution Percentage, until the Plan satisfies one of the two tests described in paragraph (b), above, and the highest permitted Actual Contribution Percentage is determined.

(C) The amount of Excess Aggregate Contributions for each Highly Compensated Employee shall be an amount equal to such Highly Compensated Employee's Aggregate Contributions taken into account in determining such Highly Compensated Employee's Actual Contribution Percentage prior to applying (A) and (B) above, minus an amount determined by multiplying such Highly Compensated Employee's Actual Contribution Percentage, determined after applying (A) and (B) above, by the Compensation used in determining such Highly Compensated Employee's Actual Contribution Percentage.

(2) Determine the total of the dollar amounts (total Excess Aggregate Contributions) calculated in Step (1).

(3) Distribute or forfeit the total Excess Aggregate Contributions determined in Step (2) as follows:

(A) Rank all Highly Compensated Employees in descending order based on the dollar amount of their Aggregate Contributions and reduce the Aggregate Contributions of the Highly Compensated Employee with the highest dollar amount of Aggregate Contributions by the amount required to cause that Highly Compensated Employee's Aggregate Contributions to equal the dollar amount of the Aggregate Contributions of the Highly Compensated Employee with the next highest dollar amount of Aggregate Contributions.

(B) The amount determined in (A), above, shall be distributed to (if attributable to Taxed Contributions) or forfeited by (if attributable to Company Contributions) the Highly Compensated Employee with the highest dollar amount until all Excess Aggregate Contributions are consumed or until the Aggregate Contributions of such Participant is reduced to the dollar amount of the Highly Compensated Employee with the next highest dollar amount of Aggregate Contributions, whichever is less. To the extent possible, a Highly Compensated Employee's Actual Contribution Percentage shall be reduced by distributing Taxed Contributions before matching contributions within the meaning of Code Section 401(m).

(1) If the total amount distributed under Step (3) above is less than the total Excess Aggregate Contributions, repeat Step (3).

(e) In its discretion, Administrative Committee may limit Taxed Contributions or Company Contributions in a manner that prevents Excess Aggregate Contributions from being made, provided that any such limit shall be nondiscriminatory, applied on a uniform basis and permitted by applicable provisions of the Code and regulations thereunder.

For purposes of the Actual Contribution Percentage, Company Contributions will be considered made for a Plan Year if made no later than the end of the twelve (12) month period beginning on the day after the close of the Plan Year.

In the event this Plan must be combined with one or more employee stock ownership plans described in Code Section 4975(e)(7) in order to satisfy the requirements of Section 401(a)(4) or 410(b) of the Code (other than the average benefits test described in Code Section 410(b)(2)(A)(ii)), all allocations under such employee stock ownership plans shall be treated as made under a single arrangement for purposes of this Section 3.5.

3.6 Rollover Contributions and Prior Plan Transfers.

Subject to the prior approval of the Administrative Committee, the Plan may receive Rollover Contributions representing all or part of the entire amount of any distribution from a qualified retirement plan meeting the requirements of Code Section 401(a) or 403(a) on behalf of al1 Eligible Employee, provided that:

(a) prior to January 1, 2002, no part of any distribution that is attributable to after-tax contributions may be rolled over to this Plan;

(b) no part of any hardship distribution may be rolled over to this Plan;

(c) no distribution that is made to comply with the minimum required distribution rules of Code Section 401(a)(9) may be rolled to this Plan; and

(d) no distribution that one of a series of substantially equal periodic payments made over the life (or life expectancy) of the Active Participant or the joint lives (or joint life expectancies) of the Active Participant and his designated Beneficiary, or for a specified period of ten years or more may be rolled over to this Plan.

On or after January 1, 2002, the Plan may accept Rollover Contributions attributable to after-tax contributions provided that such rollover is made through a direct trustee-to-trustee rollover from a qualified plan described in Code Section 401(a) or 403(a). Rollover Contributions received by the Plan which are attributable to after-tax employee contributions shall be separately accounted for, including separately accounting for the portion of such Rollover Contribution which is includable in gross income and the portion of such Rollover Contribution which is not so includable. On or after February 1, 2009, the Plan may accept Rollover Contributions attributable to another Roth elective deferral account under an applicable retirement plan described in Code Section 402A(e)(1) but only to the extent the rollover is permitted under the rules of Code Section 402(c), and provided that such rollover is made through a direct trustee-to-trustee rollover.

Except as otherwise required above, any rollover may be made (i) through a direct rollover from a qualified plan, to this Plan, or (ii) through a distribution and rollover deposited in this Plan no later than the sixtieth (60th) day after the distribution was received by the Active Participant from the distributing plan or from a conduit IRA.

Subject to the approval of the Administrative Committee, amounts may be transferred directly to the Plan from a plan qualified under Section 401(a) of the Code provided that such plan is not either a defined benefit plan described in Section 414(j) of the Code or a defined contribution plan described in Section 414(i) of the Code that is subject to the minimum funding standards contained in Section 412 of the Code. All such Rollover Contributions or prior plan transfers shall be credited to the Active Participant's

Rollover Contribution Account, with such separate accounting under a sub-account as required by applicable law or the Administrative Committee. All such contributions and transfers shall become vested and distributable in accordance with the provisions of the Plan.

With respect to a determination that the distributing plan meets the requirements of Code Section 401(a) or 403(a), evidence that the distributing plan has received a favorable determination letter from the Internal Revenue Service shall not be necessary for the Administrative Committee to reach the conclusion, in good faith, that such Rollover Contributions appear to be valid. Notwithstanding the foregoing, if the Administrative Committee later determines that the contribution was an invalid rollover contribution, the amount of the invalid rollover contribution, plus any earnings attributable thereto, shall be distributed to the Participant within a reasonable time after such determination.

For any transfer or rollover, and at the direction of the Administrative Committee and in accordance with such rules as the Administrative Committee may establish from time to time, the Plan will only accept cash on behalf of a Participant.

In accordance with such administrative requirements, and for such period, as set by the Administrative Committee, the Plan may accept rollovers from The Dow Chemical Company Employees' Savings Plan ("Dow Savings Plan") for Dow Transferees which include a plan loan maintained by such Dow Transferees under the Dow Savings Plan. The applicable terms of any such plan loan rolled over into the Plan shall continue; provided however, that the name of the Plan shall be substituted for the Dow Savings Plan on any loan notes. Any such rolled over plan loan shall count toward the maximum limit on loans available under the Plan under Article IX and shall be subject to the applicable provisions of the Plan.

3.7 Benefit and Contribution Limitations.

(a) Notwithstanding any other provision of this Plan, the sum of the annual additions (as hereinafter defined) to a Participant's Account for limitation year (which shall be the calendar year) shall not exceed the lesser of

(i) $40,000 (as adjusted for increases in the cost of living under Section 415(d) of the Code), or

(ii) 100% of the Participant's compensation (as defined in Code Section 415(c)(3)) for such limitation year from all Affiliated Companies.

For any short Plan Year, the dollar limitation in (i), above, shall be reduced by a fraction, the numerator of which is the number of full months in the short Plan Year and the denominator of which is twelve (12). For Limitation Years beginning on or after January 1, 1998, Compensation under Code Section 415(g)(3) of the code ("Code Section 415 Compensation") shall include any elective deferral as defined in Code Section 402(g)(3) and any amount which is contributed or deferred by the Company at the election of the Employee and which is not otherwise includable in the gross income of the Employee by reason of Code Sections 125 or 457. For Plan Years beginning prior to January 1, 1998, such elective deferrals are not included in Code Section 415 Compensation. For Limitation Years beginning on or after January 1, 1998, Code Section 415 Compensation shall include salary reduction amounts deemed contributed under Section 125 of the Code because the Employee is unable (or fails) to certify that he has other health insurance coverage and, thus, is unable to elect unreduced salary instead of health insurance benefits, but only if the Company relies on employee certifications of coverage and does not otherwise request or collect information regarding the Employee's other health coverage as part of the enrollment process for the health plan. For Limitation Years beginning on and after January 1, 2001, Code Section 415 Compensation shall include elective amounts that are not includible in gross income of the employee by reason of Code Section 132(f)(4). Code Section 415 Compensation shall include "regular compensation for services" that is paid after a Participant's severance from employment to the extent such compensation is made within the time limits prescribed by Code Section 415 and such amounts would have been included as Code Section 415 Compensation if paid prior to the Participant's severance from employment.

(b) Annual additions to a Participant's Account for a Plan Year shall be the sum of:

(i) the Participant's Tax Deferred Contributions and Roth 401(k) Contributions for such Plan Year, except to the extent exempted as "catch-up" contributions in accordance with Code Section 414(v);

(ii) for Plan Years beginning after December 31, 1986, the Participant's Taxed Contributions for such Plan Year;

(iii) the employer contributions allocated to the Participant's Account (including, but not limited to, Company Contributions);

(iv) forfeitures allocated to the Participant's Account;

(v) amounts allocated, after March 31, 1984, to an individual medical account, as defined in Code Section 415(l)(2) which is part of a pension or annuity plan maintained by a Participating Employer; and

(vi) amounts derived from contributions paid or accrued after December 31, 1985 in taxable years ending after such date, are attributable to post-retirement medical benefits allocated to the separate account of a key employee (as defined in Code Section 419A(d)(3)) under a welfare benefit plan (as defined in Code Section 419(e)) maintained by a Participating Employer;

provided, however, that the percentage of compensation limitations referred to in (a), above, shall not apply to any contribution for medical benefits (within the meaning of Code Section 419A(f)(2)) after separation from service which is otherwise treated as an annual addition or to any amount otherwise treated as an annual addition under Code Section 415(l)(1).

(c) Annual additions to a Participant's Account for a Plan Year shall not include:

(i) transfers or rollover contributions;

(ii) Participant repayments of a plan loan, a cash-out distribution or of a distribution of mandatory contributions (within the meaning of Code Section 411(a)(3)(D); or

(iii) employee contributions to a simplified employee pension excludable from gross income under Code Section 408(k)(6).

(d) In the event that it is determined that the annual additions to a Participant's Account for any Plan Year would be in excess of the limitations contained herein, such annual additions shall be reduced to the extent necessary to bring such annual additions within the limitations contained in this Section 3.7. Likewise, for any Limitation Year beginning before January 1, 2000, in the event that any Participant of the Plan is also a Participant in any defined benefit plan or plans maintained by an Affiliated Company and it is determined that the annual additions to a Participant's Account for any Plan Year when considered with the Participant's projected annual benefit under such defined benefit plan or plans would be in excess of the limitations contained in Section 3.8 hereof, such annual additions and benefits shall be reduced to the extent necessary to satisfy the limitations contained in Section 3.8. In general, the required reductions in annual additions and benefits shall be made by proceeding only as far as necessary through the following sequence, with reductions at each level being prorated among all affected plans making provision for such reductions:

(1) return of Taxed Contributions, plus any earnings thereon, if any, to the extent they are treated as annual additions;

(2) return of Tax Deferred Contributions and Roth 401(k) Contributions, plus any earnings thereon, if any, to the extent they are treated as annual additions;

(3) reduction of defined contribution plan annual additions other than Taxed Contributions and Tax-Deferred Contributions.

The Administrative Committee is authorized in its discretion to utilize a different method of correction provided such method is consistent with the requirements of the Code and Regulations thereunder and is applied on a uniform and non-discriminatory manner to all affected Participants.

(e) Notwithstanding anything to the contrary herein, the application of the Code Section 415 limitations and requirements for limitation years beginning on or after July 1, 2007 shall be made in accordance with the applicable final Treasury regulations published in April 2007 with respect to applying such limitations and requirements.

3.8 Roth 401(k) Contributions

(a) As of February 1, 2009, the Plan will accept Roth 401(k) Contributions made on behalf of Active Participants which will be allocated to the Roth 401(k) Contribution Account. Unless specifically stated otherwise, Roth 401(k) Contributions will be treated as Tax Deferred Contributions for all purposes under the Plan in accordance with applicable law and as required by the context of the Plan. Additionally, Roth 401(k) Contributions shall not be made under any automatic enrollment provisions of the Plan. Roth 401(k) Contributions, earnings, distributions and withdrawals will be taxed in accordance with applicable law.

(b) Subject to the preceding provisions of this Article III, an Active Participant may elect to contribute Roth 401(k) Contributions to the trust fund by authorizing monthly payroll deductions of from 1% to 80% (in whole integers) of his Compensation. An Active Participant's Roth 401(k) Contributions may not exceed the difference between (i) 80% of his Compensation and (ii) the percentage of his Compensation contributed as a Tax Deferred Contributions and Taxed Contributions. At any time, the Administrative Committee may reduce the rate of future Roth 401(k) Contributions to be made by Highly Compensated Employees in order to satisfy the preceding provisions of this Article III. If the Compensation of an Active Participant is changed, the dollar amount of his Roth 401(k) Contributions will automatically be changed so that the percentage elected is not changed.

(c) An Active Participant may elect to completely suspend such contributions or to change the percentage of his Roth 401(k) Contributions. Such election shall be made at such time and in such manner as the Administrative Committee shall determine, and shall be effective only in accordance with such rules as shall be established from time to time by the Administrative Committee.

(d) Roth 401(k) Contributions for any month will be paid by the Active Participant's Participating Employer to the trust fund as soon as feasible after the end of each pay period but in no event later than fifteen (15) business days following the end of the month with respect to which such amounts are withheld

(e) In all cases and notwithstanding anything to the contrary, Matching Contributions will be applied to Tax Deferred Contributions first, then Roth 401(k) Contributions and then Taxed Contributions. Except as otherwise provided herein, Catch-Up Contributions attributable to Roth 401(k) Contributions will not be eligible for Matching Contributions.

(f) In the case of a distribution of Excess Contributions for a Highly Compensated Employee, the Administrative Committee will determine the extent to which the excess amount is composed of Tax Deferred Contributions and/or Roth 401(k) Contributions but only to the extent such types of contribution were made for the year.

(g) A Roth 401(k) Contribution is an elective deferral that is (i) designated irrevocably by the Participant at the time of the cash or deferred election as a Roth elective deferral that is being made in lieu of all or a portion of the pre-tax elective deferrals the Participant is otherwise eligible to make under the Plan; and (ii) treated by the Company as includible in the Participant's income at the time the Participant would have received that amount in cash if the Participant had not made a cash or deferred election.

3.9 Qualified Separate Lines of Business. To the extent determined by the Administrative Committee for any Plan Year, the Plan may operate with individual "qualified separate lines of business" ("QSLOBs"). In such case for such Plan Years, the Plan testing described in Sections 3.2 and 3.5 (and the determinations of Actual Contribution Percentage and Actual Deferral Percentage) and any other applicable Plan testing requirements, the Plan testing for such Plan Years shall be determined separately with respect to the designated QSLOBs, and the Plan provisions contained herein shall be construed and administered accordingly. For avoidance of doubt, with respect to Plan Years beginning after 2017 (regardless of whether QSLOBs are designated or not designated for a particular Plan Year), this Plan is intended to be a "safe harbor" plan (via the non-elective contribution approach) as described in Code Sections 401(k)(12) for all Non-Bargaining Unit Employees.

ARTICLE IV

ESOP LOANS

The provisions of this Article IV shall apply solely to that portion of the Plan which is an ESOP within the meaning of Section 4975(e)(7) of the Code.

4.1 [Reserved]

4.2 [Reserved]

4.3 Limitations on Stock Acquired with Proceeds of an ESOP Loan. Except as otherwise permitted in Sections 409(h) and (l) of the Code and regulations promulgated thereunder, no Company Stock acquired with the proceeds of an ESOP Loan shall be subject to any put, call, or other option or any buy sell or similar agreement while held by and when distributed from the trust fund, whether or not the Plan constitutes an "employee stock ownership plan" within the meaning of Section 4975(e)(7) of the Code at such time and whether or not the ESOP Loan has been repaid at such time.

4.4 [Reserved]

4.5 [Reserved]

ARTICLE V

ALLOCATIONS TO PARTICIPANTS' ACCOUNTS

5.1 Tax Deferred Contributions, Roth 401(k) Contributions and Taxed Contributions. Tax Deferred Contributions, Roth 401(k) Contributions and Taxed Contributions made on behalf of or by a Participant shall be allocated to his Tax Deferred Contribution Account, Roth 401(k) Contribution Account or Taxed Contribution Account, as appropriate, as soon as practicable after such contributions are transferred to the trust fund established under the Plan.

5.2 Allocations with Respect to Dividends on Allocated Company Stock.

(a) Participants.

(1) [Reserved]

(2) Notwithstanding anything in the Plan to the contrary, with respect to cash dividends paid on or after January 1, 2002 on Company Stock held in a Participant's ESOP Account, each Participant (or in the event of the Participant's death, to his Beneficiary) may elect, in accordance with uniform and non-discriminatory procedures adopted by the Administrative Committee, to (i) have such cash dividends directly paid to such Participant (or in the event of the Participant's death, to his Beneficiary) as soon as administrative feasible following the payment of such cash dividend, (ii) be paid to the trust fund and distributed to the Participant (or in the event of the Participant's death, to his Beneficiary) as soon as administrative feasible following the payment of such cash dividend but no later than 90 days after the end of the Plan Year in which the cash dividend is paid, or (iii) be paid to the Plan (in cash or Company Stock, as elected by the Company) and automatically reinvested in the Olin Common Stock Fund, all in accordance with Code Section 404(k), and in such event the Company shall be entitled to deduct the amount of the cash dividends (but not any earnings on such cash dividends earned while in the Plan) subject to such election in the taxable year in which the cash dividend is paid or distributed. On and after January 1, 2002, a Participant shall at all times be deemed vested in any cash dividends allocated to his ESOP Account, with respect to which he is offered the foregoing reinvestment election, whether or not he is then otherwise fully vested in his Account Balance under the terms of the Plan.

(i) Notwithstanding the foregoing, in accordance with IRS Notice 2002-2, such deduction shall also be available with respect to cash dividends paid by the Company to the ESOP portion of the Plan in 2001, if Participants are offered an election between reinvestment in Company Stock or distribution of the cash dividend and such election becomes irrevocable in 2002.

(ii) In order for the cash dividend reinvestment election to be effective:

(1) Participants must be given a reasonable opportunity before the cash dividend is paid or distributed from the ESOP portion of the Plan to make the election;

(2) Participants must have a reasonable opportunity to change their cash dividend reinvestment election at least annually; and

(3) if there is a change in the Plan terms governing the manner in which cash dividends are paid or distributed to Participants, Participants must be given a reasonable opportunity to make an election under the revised Plan terms prior to the date on which the first cash dividend subject to the new Plan terms is paid or distributed.

(iii) No cash dividends paid or reinvested as provided for above shall be treated as annual additions under Code Section 415, or as Tax Deferred Contributions, Roth 401(k) Contributions or Taxed Contributions subject to Code Sections 410(k), 402(g) or 401(m).

(3) With respect to dividends paid on Company Stock that are not part of a Participant's ESOP Account or non-cash dividends paid on Company Stock held in the Participant's ESOP Account, such dividends will be reinvested in the same manner and percentages as the Participant's other Participant-Directed Investments (or as otherwise provided under the Plan).

5.3 Matching Contributions.

(a) Generally.

(i) Each Participating Employer shall allocate to eligible Active Participants from contributions sufficient to provide each such Participant (whether or not still employed by an Affiliated Company) with a Matching Contribution equal to such amounts as determined below. The Company may elect to provide a different rate of Matching Contribution or no Matching Contribution for all or any group of Active Participants, provided however that a decrease in the rate of Matching Contributions may be made effective only prospectively following approval of such decrease by the Company. Notwithstanding the foregoing or below, the Plan's Matching Contribution provisions below in Section 5.3(c) shall not be applicable with respect to Bargaining Unit Employees unless and until otherwise provided in the applicable collective bargaining agreement.

(ii) In no event will any Tax Deferred Contributions, Roth 401(k) Contributions or Taxed Contributions be matched at greater than a 100% rate.

(iii) In the event that a Participant's matched Tax Deferred Contributions, Roth 401(k) Contributions or Taxed Contributions are distributed or returned to the Participant pursuant to Sections 3.1, 3.2 or 3.5, an amount equal to the Current Market Value of the related Matching Contribution (and earnings thereon) shall be forfeited by such Participant.

(iv) Matching Contributions shall be invested in the same manner and percentages as the Participant's other Participant-Directed Investments.

(v) Matching Contributions for Plan Years prior to the Restatement Effective Date were determined in accordance with the terms of the Prior Plan.

(b) Non-Bargaining Unit Employee Participants.

(i) Except as provided below, eligible Active Participants who are Non-Bargaining Unit Employees shall be provided a Matching Contribution equal to (i) 100% of the amount contributed on behalf of or by such Active Participant as a Tax Deferred Contribution, Roth 401(k) Contribution and Taxed Contribution for such contributions up to the first 3% of such Active Participant's Compensation, and (ii) 50% of the amount contributed on behalf of or by such Active Participant as a Tax Deferred Contribution, Roth 401(k) Contribution and Taxed Contribution for such contributions up to the next 4% of such Active Participant's Compensation.

(ii) Notwithstanding Section 5.3(b)(i), with respect to hourly Non-Bargaining Unit Employees in the Winchester division at the Oxford, Mississippi location, eligible Active Participants shall be provided a Matching Contribution equal to 50% of the amount contributed on behalf of or by the Active Participant as a Tax Deferred Contribution, Roth 401(k) Contribution and Taxed Contribution for such contributions up to 3% of such Active Participant's Compensation.

(iii) Notwithstanding Section 5.3(b)(i), with respect to salaried Non-Bargaining Unit Employees in the Winchester division, eligible Active Participants shall be provided a Matching Contribution equal to 50% of the amount contributed on behalf of or by such Active Participant as a Tax Deferred Contribution, Roth 401(k) Contribution and Taxed Contribution for such contributions up to 6% of such Active Participant's Compensation.

(c) Bargaining Unit Employee Participants.

(i) With respect to the Bargaining Unit Employees at the Joliet, Illinois facility, eligible Active Participants shall be provided a Matching Contribution equal to (i) 100% of the amount contributed on behalf of or by such Active Participant as a Tax Deferred Contribution, Roth 401(k) Contribution and Taxed Contribution for such contributions up to the first 3% of such Active Participant's Compensation, and (ii) 50% of the amount contributed on behalf of or by such Active Participant as a Tax Deferred Contribution, Roth 401(k) Contribution and Taxed Contribution for such contributions up to the next 4% of such Active Participant's Compensation.

(ii) With respect to Bargaining Unit Employees in the Winchester division at the East Alton, Illinois facility, eligible Active Participants shall be provided a Matching Contribution equal to 50% of the amount contributed on behalf of or by the Active Participant as a Tax Deferred Contribution, Roth 401(k) Contribution and Taxed Contribution for such contributions up to 6% of such Active Participant's Compensation.

(iii) With respect to Bargaining Unit Employees in the Chlor Alkali Products and Vinyls division at the Henderson, Nevada facility, the McIntosh, Alabama facility, and the Niagara Falls, New York facility, eligible Active Participants shall be provided a Matching Contribution equal to 50% of the amount contributed on behalf of or by the Active Participant as a Tax Deferred Contribution, Roth 401(k) Contribution and Taxed Contribution for such contributions up to 6% of such Active Participant's Compensation.

(iv) With respect to the KA Steel Union Steel Participants, eligible KA Steel Union Steel Participants shall be provided a Matching Contribution equal to 100% of the amount contributed on behalf of or by the KA Steel Union Steel Participant as a Tax Deferred Contribution, Roth 401(k) Contribution and Taxed Contribution for such contributions up to 8% of such KA Steel Union Steel Participant's Compensation. For these purposes, "KA Steel Union Steel Participants" refers to Bargaining Unit Employees of KA Steel covered by the collective bargaining agreement with United Steel, Paper and Forestry, Rubber Manufacturing, Energy, Allied-Industrial and Service Workers Union.

(v) With respect to the KA Steel Local 710 Driver Participants, eligible KA Steel Local 710 Driver Participants shall be provided a Matching Contribution equal to 100% of the amount contributed on behalf of or by the KA Steel Local 710 Driver Participant as a Tax Deferred Contribution, Roth 401(k) Contribution and Taxed Contribution for such contributions up to 5% of such KA Steel Local 710 Driver Participant's Compensation. For these purposes, "KA Steel Local 710 Driver Participants" refers to Bargaining Unit Employees of KA Steel covered by the collective bargaining agreement with Teamsters Local Union No. 710.

(vi) With respect to the Bargaining Unit Employees of the Olin Dow Subsidiary at the Freeport, Texas facility, eligible Active Participants shall be provided a Matching Contribution equal to (i) 100% of the amount contributed on behalf of or by such Active Participant as a Tax Deferred Contribution, Roth 401(k) Contribution and Taxed Contribution for such contributions up to the first 3% of such Active Participant's Compensation, and (ii) 50% of the amount contributed on behalf of or by such Active Participant as a Tax Deferred Contribution, Roth 401(k) Contribution and Taxed Contribution for such contributions up to the next 4% of such Active Participant's Compensation.

5.4 Performance Matching Contributions. No Performance Matching Contributions shall be made under the Plan, nor have been made under the Plan for Plan Years after December 31, 2008. Performance Matching Contributions for Plan Years prior to January 1, 2009 were determined in accordance with the terms of the Prior Plan. Performance Matching Contribution were invested in the same manner and percentages as the Participant's other Participant-Directed Investments.

5.5 [Reserved]

5.6 [Reserved].

5.7 Retirement Contributions.

(a) Generally.

(i) Each Participating Employer shall allocate to eligible Active Participants from contributions sufficient to provide each such Participant (whether or not still employed by an Affiliated Company) with a Retirement Contribution equal to such amounts as determined below. Notwithstanding the foregoing or below, the Plan's Retirement Contribution provisions below in Section 5.7(c)-(e) shall not be applicable with respect to Bargaining Unit Employees unless and until otherwise provided in the applicable collective bargaining agreement.

(ii) A Participant's Retirement Contribution Account balances may only be distributed upon a termination of service, death, disability or retirement, and are not available for withdrawal, in-service distribution or loan.

(iii) To the extent a Participant's Retirement Contribution percentage in this Section 5.7 changes at age 45, such change shall occur in the month following the Participant's attainment of age 45.

(iv) Retirement Contributions shall be invested in the same manner and percentages as the Participant's other Participant-Directed Investments.

(v) Retirement Contributions for Plan Years prior to the Restatement Effective Date were determined in accordance with the terms of the Prior Plan.

(b) Non-Bargaining Unit Employee Participants.

(i) Except as provided below, eligible Active Participants who are Non-Bargaining Unit Employees shall be provided a Retirement Contribution that shall be allocated to such Active Participant's Retirement Contribution Account during a Plan Year on a pay period basis (or at such other time or times as the Company determines to be administratively feasible) with respect to which a contribution is made, in an amount equal to a certain percentage of the Active Participant's Compensation. Such percentage shall be 5% if the Active Participant is less than age 45, and 7.5% if the Active Participant is age 45 or older.

(ii) Notwithstanding Section 5.7(b)(i), with respect to hourly Non-Bargaining Unit Employees in the Winchester division at the Oxford, Mississippi location, eligible Active Participants shall be provided a Retirement Contribution that shall be allocated to such Active Participant's Retirement Contribution Account during a Plan Year on a pay period basis (or at such other time or times as the Company determines to be administratively feasible) with respect to which a contribution is made, in an amount equal to 3% of the Active Participant's Compensation.

(c) East Alton Bargaining Unit Population – 2006 Electing CEOP Participants.

Bargaining Unit Employees at the East Alton, Illinois facility hired before January 1, 2006 who were active participants in the Olin Corporation Employees Pension Plan under such plan's then Appendix

J-9 had the opportunity during 2006 (in the form and manner determined by the Administrative Committee or its designee) to elect, effective as of December 31, 2006 to (i) continue accruing benefits under the Olin Corporation Employees Pension Plan in accordance with the terms of such plan's then Appendix J-9 (as amended from time to time), or (ii) cease accruing benefits under the Olin Corporation Employees Pension Plan and instead be eligible to receive a certain retirement contribution under the Plan in accordance with the terms (as amended from time to time) hereunder. Such Bargaining Unit Employees electing option (ii) of the preceding sentence shall be known herein as "Electing CEOP Participants".

The Retirement Contributions described in this Section 5.7(c) shall be provided only with respect to Electing CEOP Participants. The Retirement Contributions made under this Section 5.7(c) shall be allocated during a Plan Year on a pay period basis (or at such other time or times as the Company determines to be administratively feasible) to the Retirement Contribution Accounts of eligible Active Participants with respect to which a contribution is made, in an amount equal to a certain percentage of the Active Participant's Compensation.

For the 2007 Plan Year and the 2008 Plan Year, such percentage for an Electing CEOP Participant equaled the sum of (i) 5%, (ii) the "service based percentage" as determined in accordance with the table below, and (iii) 2% if such Participant was at least age 50 as of January 1, 2007.

Service	Service Based Percentage
Under 15	0%
15-19	1%
20-24	3%
25 or more	5%

The determination of service for the above tables shall be subject to the following:

(i) service shall be determined as of the last day of the prior Plan Year;

(ii) service shall refer to Years of Service; and

(iii) service shall be rounded down to the nearest whole number.

Effective for Plan Years after December 31, 2008, such percentage for an Electing CEOP Participant shall be determined as follows:

(i) with respect to Participants whose percentage immediately before January 1, 2009 was 12%, such percentage shall be 12%;

(ii) with respect to Participants whose percentage immediately before January 1, 2009 was 10%, such percentage shall be 10%;

(iii) with respect to Participants whose percentage immediately before January 1, 2009 was 8%, such percentage shall be 8%;

(iv) with respect to Participants whose percentage immediately before January 1, 2009 was 7%, such percentage shall be 7% if the Participant is less than age 45, and 7.5% if the Participant is age 45 or older;

(v) with respect to Participants whose percentage immediately before January 1, 2009 was 6%, such percentage shall be 6% if the Participant is less than age 45, and 7.5% if the Participant is age 45 or older; and

(vi) with respect to Participants whose percentage immediately before January 1, 2009 was 5%, such percentage shall be 5% if the Participant is less than age 45, and 7.5% if the Participant is age 45 or older.

(d) East Alton Bargaining Unit Population – Frozen Pension Plan 2009 Population.

Effective as of February 1, 2009, Bargaining Unit Employees at the East Alton, Illinois facility hired before January 1, 2006 who ceased accruing benefits under the Olin Corporation Employees Pension Plan (under such plan's then Appendix J-9) as of January 31, 2009 due to such plan's benefit accrual freeze became eligible to receive a certain retirement contribution under the Plan in accordance with the terms (as amended from time to time) hereunder. The Retirement Contributions described in this Section 5.7(d) shall be provided only with respect to such Bargaining Unit Employees described in the preceding sentence.

The Retirement Contributions made under this Section 5.7(d) shall be allocated during a Plan Year on a pay period basis (or at such other time or times as the Company determines to be administratively feasible) to the Retirement Contribution Accounts of eligible Active Participants with respect to which a contribution is made, in an amount equal to a certain percentage of the Active Participant's Compensation. Such percentage shall be 5% if the Active Participant is less than age 45, and 7.5% if the Active Participant is age 45 or older.

(e) Other Bargaining Unit Employee Populations.

(i) With respect to the Bargaining Unit Employee populations listed below in this Section 5.7(e)(i), eligible Active Participants shall be provided a Retirement Contribution that shall be allocated to such Active Participant's Retirement Contribution Account during a Plan Year on a pay period basis (or at such other time or times as the Company determines to be administratively feasible) with respect to which a contribution is made, in an amount equal to a certain percentage of the Active Participant's Compensation. Such percentage shall be 5% if the Active Participant is less than age 45, and 7.5% if the Active Participant is age 45 or older. The following Bargaining Unit Employee populations shall be eligible for the foregoing Retirement Contribution:

(1) Bargaining Unit Employees at the Joliet, Illinois facility;

(2) Bargaining Unit Employees in the Chlor Alkali Products and Vinyls division at the Henderson, Nevada facility;

(3) Bargaining Unit Employees in the Chlor Alkali Products and Vinyls division at the McIntosh, Alabama facility;

(4) Bargaining Unit Employees in the Chlor Alkali Products and Vinyls division at the Niagara Falls, New York facility; and
(5) Bargaining Unit Employees of the Olin Dow Subsidiary at the Freeport, Texas facility.

(ii) With respect to the Bargaining Unit Employees in the Winchester division at the East Alton, Illinois facility hired on and after January 1, 2006, eligible Active Participants shall be provided a Retirement Contribution that shall be allocated to such Active Participant's Retirement Contribution Account during a Plan Year on a pay period basis (or at such other time or times as the Company determines to be administratively feasible) with respect to which a contribution is made, in an amount equal to 5% of the Active Participant's Compensation.

(f) Except as specifically provided below (generally regarding the "safe harbor contributions" made under the Plan) and otherwise in Article VII, the vesting schedule provided under Section 7.2 shall be applicable to the Retirement Contributions provided under this Section 5.7 and the Prior Plan.

(i) For Plan Years beginning after 2008 and prior to 2018, the Retirement Contribution attributable to 3% of a Participant's Compensation made with respect to a Plan Year for Non-Bargaining Unit Employees (excepting such Employees at KA Steel and the Olin Dow Subsidiary) shall be 100% vested. For avoidance of doubt, the vesting schedule provided under Section 7.2 shall still be applicable to Retirement Contributions for such Non-Bargaining Unit Employees made for such Plan Years to the extent they are in excess of the Retirement Contribution described in the preceding sentence.

(ii) For Plan Years beginning after 2017, the Retirement Contribution attributable to 3% of a Participant's Compensation made with respect to a Plan Year for Non-Bargaining Unit Employees shall be 100% vested. For avoidance of doubt, the vesting schedule provided under Section 7.2 shall still be applicable to Retirement Contributions for such Non-Bargaining Unit Employees made for such Plan Years to the extent they are in excess of the Retirement Contribution described in the preceding sentence.

ARTICLE VI

INVESTMENT OF CONTRIBUTIONS

6.1 Participant Direction of Accounts. The Administrative Committee is authorized and directed to maintain a program, to be administered in a uniform and non-discriminatory manner, whereby a Participant or, in the event of a Participant's death, a Beneficiary may direct the investment of the Participant's Account. By virtue of such Participant directed investments, the Plan is intended to constitute a plan described in Section 404(c) of ERISA and the final regulations issued thereunder. As such, to the extent permitted by law, the Trustee, the Administrative Committee, the Investment Committee, the Company, any Participating Employer, or any of its directors, officers, employees or agents shall be relieved of liability for any losses which are the direct and necessary result of investment instructions given or deemed given by a Participant (or Beneficiary). A Participant (or Beneficiary) shall not be deemed to be a plan fiduciary, however, by reason of the exercise of control over the investment of his Account except as otherwise provided in the Plan.

Participant (or Beneficiary) investment direction over Accounts shall be subject to such rules and regulations as to the timing and frequency of investment changes, transfers between Funds, limitations, allocations of expenses and other aspects of Plan administration as the Administrative Committee may from time to time establish in writing. Additionally, restrictions may be imposed on the Accounts of certain Participants with Olin Common Stock Fund investments to comply with any securities laws or Company policies or Section 6.2A.

The Investment Committee may change the types of Funds offered, may add, freeze or delete any particular Fund (including a self-directed brokerage window investment option), and may map investments between Funds (or from investment funds of merged plans into Funds). The decision to invest in any particular Fund (including a self-directed brokerage window investment option) offered under the Plan, however, is the sole responsibility of each Participant (or Beneficiary, as the case may be). To the extent a self-directed brokerage window investment option is available, each Participant (or Beneficiary as the case may be) shall be the "named fiduciary" (as described in Section 402(a)(2) of ERISA) with respect to such self-directed brokerage window investment option. The Trustee, the Administrative Committee, the Investment Committee, the Company, any Participating Employer, or any of its directors, officers, employees or agents are not empowered to advise a Participant (or Beneficiary) as to the manner in which his Account shall be invested. The fact that a security is available to Participants (or Beneficiaries) for investment under the Plan shall not be construed as a recommendation for the purchase of that security, nor shall the designation of any option impose any liability on the Company, any Participating Employer, its directors, officers, employees or agents, the Trustee, the Investment Committee or the Administrative Committee.

The Investment Committee in its discretion may engage investment managers to manage the Accounts of Participants (if so elected by Participants) upon such terms as agreed to by the Investment Committee and such investment managers.

The Administrative Committee shall establish rules to permit investment fund elections consistent with Code Section 401(a)(28) and any related Treasury regulations thereunder for ESOP diversification purposes under the Plan. For avoidance of doubt, the provisions of this Article VI are intended to satisfy Code Section 401(a)(28) and the Pension Protection Act of 2006 (including, but not limited to, Code Section 401(a)(35) and the Treasury regulations promulgated thereunder) by permitting immediate diversification for all units in the Olin Common Stock Fund acquired by the Account of a Participant.

6.2 Investments in Company Stock. Notwithstanding Section 6.1 above, and subject to the provisions of Section 6.2A, the Investment Committee shall maintain as a Fund the Olin Common Stock Fund. Subject to the limitations of Section 6.2A, Participants (or Beneficiaries) may, but are not required to, invest some portion of their Tax Deferred Contributions, Roth 401(k) Contributions, Taxed Contributions, Rollover Contributions and Company Contributions in such Olin Common Stock Fund.

The Trustee may purchase Company Stock directly from the Company or from any other source, including on the open market; provided, however, that in no event shall a commission be charged with respect to a purchase of Company Stock from the Company. Such Company Stock may be treasury stock, authorized and previously unissued shares, or shares previously issued and repurchased by the Company, all valued at the Current Market

Value of such Company Stock. Additions to and subtractions from the Olin Common Stock Fund may be netted for any given period.

Notwithstanding anything in the Plan or the Trust Fund to the contrary, the Investment Committee shall appoint an entity to serve as the independent fiduciary and investment manager of the Olin Common Stock Fund, whereby such entity, in its discretion, may suspend future investment in the Olin Common Stock Fund or liquidate the Company Stock held in the Olin Common Stock Fund, in the event such entity determines that extreme circumstances have occurred such that there is a serious question regarding the Company's short-term viability as a going concern.

6.2A Limitations on Investing in the Olin Common Stock Fund.

Notwithstanding anything in the Plan to the contrary, and in accordance with the manner determined by the Investment Committee, Participant (and Beneficiary) investment of his or her Account in the Olin Common Stock Fund shall be limited as follows:

(a) No more than 20% of a Participant's (or Beneficiary's) contributions made on and after April 3, 2017 into his or her Account may be invested in the Olin Common Stock Fund. If a Participant (or Beneficiary) has more than 20% of such contributions allocated to be invested in the Olin Common Stock Fund, such excess allocation will be invested in the age-based retirement Fund with the date closest to the Participant's anticipated retirement date (assuming such person retires at age 65) (or such other Fund as may be designated by the Investment Committee).

(b) A Participant's (or Beneficiary's) transfers between Funds under his or her Account shall be limited to the extent such transfer would result in more than 20% of the Account being invested in the Olin Common Stock Fund.

(c) As determined on a monthly basis (or other periodic basis as determined by the Investment Committee), for any Participant's (or Beneficiary's) Account with more than 20% of such Account invested in the Olin Common Stock Fund, such Participant (or Beneficiary) will not be permitted to allocate subsequent contributions into his or her Account in the Olin Common Stock Fund. In such case, any allocation that otherwise would have been invested in the Olin Common Stock Fund, will be invested in the age-based retirement Fund with the date closest to the Participant's anticipated retirement date (assuming such person retires at age 65) (or such other Fund as may be designated by the Investment Committee).

(d) If a Participant (or Beneficiary) is utilizing an automatic rebalancing feature under the Plan for his or her Account, the amount that may be allocated under such feature in the Olin Common Stock Fund will be limited to 20%. If, under such automatic rebalancing feature, a Participant (or Beneficiary) has more than 20% allocated to be invested in the Olin Common Stock Fund, such excess allocation will be invested in the age-based retirement Fund with the date closest to the Participant's anticipated retirement date (assuming such person retires at age 65) (or such other Fund as may be designated by the Investment Committee).

(e) For avoidance of doubt, reference above to "contributions" shall be deemed to include Tax Deferred Contributions, Roth 401(k) Contributions, Taxed Contributions, Rollover Contributions and Company Contributions.

(f) Nothing in this Section 6.2A shall be deemed to affect the operation of the provisions of Section 5.2.

This Section 6.2A was effective as of April 3, 2017.

6.3 Investment of Matching Contributions and Performance Matching Contributions.

(a) Matching Contributions shall be made as provided under Section 3.4 and invested as provided under Section 5.3. Dividends issued on Company Stock held in the ESOP Account shall be reinvested or distributed as provided under Section 5.2. Effective October 17, 2003, Matching Contributions invested in the Olin Common Stock Fund may be transferred to other Funds at the direction of the Participant (or Beneficiary).

(b) Performance Matching Contributions shall be made and invested as provided under the Prior Plan. Dividends issued on Company Stock held in the ESOP Account shall be reinvested or distributed as provided under Section 5.2. Effective October 17, 2003, Performance Matching Contributions invested in the Olin Common Stock Fund may be transferred to other Funds at the direction of the Participant (or Beneficiary).

6.4 Special Distribution Account.

(a) Generally. In the case of a distribution of stock and/or securities of a controlled corporation of the Company received on, or with respect to, the Company Stock as part of a spin off, split off, split up or other similar reorganization resulting in a corporate separation, the Trustee will retain such stock and cause to be credited to a "Special Distribution Account" established for each Participant under the Olin Common Stock Fund his proportionate number of shares of such stock as determined by the Trustee on the basis of the number of shares of Company Stock in such Participant's account in the Olin Common Stock Fund on the record date of the distribution. Notwithstanding the preceding sentence, the Trustee, in its discretion, may sell such stock and/or securities received on, or with respect to, the Company Stock held in the ESOP Account and reinvest, subject to other applicable provisions of the Plan, such proceeds in Company Stock for the Participants' Olin Common Stock Fund accounts if the Trustee determines that it is necessary to do so in order to retain the status of the ESOP as an employee stock ownership plan within the meaning of Section 4975(e)(7) of the Code. In any event, however, the Trustee shall sell all other securities received as part of such distribution, and reinvest, subject to other applicable provisions of the Plan, the proceeds thereof in Company Stock for the Participants' Olin Common Stock Fund accounts.

(b) Subsequent Corporate Transactions with Respect to Shares Held in Special Distribution Account. In the event any securities of a previously controlled corporation of the Company credited to a Participant's Special Distribution Account shall thereafter, pursuant to a merger, consolidation or other reorganization involving the previously controlled corporation, be changed into, or become exchangeable for, securities of another corporation and/or cash, the Trustee will retain the securities of such other corporation and cause the same to be credited to such Special Distribution Account. If shareholders of the previously controlled corporation shall be offered an election by such other corporation as to the securities and/or cash they may receive in such merger, consolidation or other reorganization, the Trustee will provide a similar election to each Participant, provided that if a Participant fails to exercise any such election afforded by the Trustee within the period of time required by the Trustee, then such election may be made by the Trustee on such basis as it deems appropriate. In the event securities in a Special Distribution Account shall be the subject of a tender offer for cash and/or an exchange offer for securities of another corporation, the Trustee may accept such tender or exchange offer with respect to a Participant only if the Trustee has been authorized to do so by such Participant within the period of time required by the Trustee. The Trustee will retain any securities of such other corporation received in an exchange offer and cause the same to be credited to such Special Distribution Account. In the event that the securities of such other corporation shall carry the right of conversion into other securities, such right may be exercised only at the election of the Participant and shall not be a responsibility of the Trustee. Upon any such conversion, such other securities shall be credited to the Participant's Special Distribution Account. All cash received by the Trustee in such merger, consolidation or other reorganization, or in such tender offer, or as a result of any securities received as part of such merger, consolidation or other reorganization and all dividends and other distributions on securities held in a Special Distribution Account, shall, except as stated above or elsewhere in the Plan, be invested in the Olin Common Stock Fund.

ARTICLE VII

VESTING

7.1 Vesting of Tax Deferred Contribution, Roth 401(k) Contribution and Taxed Contribution Accounts. Each Participant's Tax Deferred Contribution Account, Roth 401(k) Contribution Account and Taxed Contribution Account (including any earnings on such contributions) shall be fully vested at all times.

7.2 Vesting of Company Contribution Accounts.

(a) The Company Contribution Account of each Active Participant who dies, incurs a Total and Permanent Disability, attains age 65 while in the employ of an Affiliated Company or enters Retirement shall be fully vested and nonforfeitable.

(b) The Company Contribution Account of each Participant, and subject to Section 5.7(f), shall be vested in accordance with the following schedule:

Years of Service	Vested Percentage
2 years	25%
3 years	50%
4 years	75%
5 or more years	100%

(c) It is anticipated that a Participant may be transferred between and among the Company and Participating Employers or their Affiliated Companies, and in the event of any such transfer, the Participant involved shall not have his rights under the Plan adversely affected, but shall continue to be credited with his accumulated Years of Service.

(d) Notwithstanding the foregoing, the Company Contribution Account of each Participant who is defined as a Transferred Employee under Article IX of the Asset Purchase Agreement by and between Olin Corporation and the Arco Chemical Company, dated as of October 9, 1996 (the "Agreement"), shall be fully vested and non-forfeitable as of the Closing Date specified in the Agreement, as amended.

(e) The Company Contribution Account of each Participant who immediately prior to the effective date of the spin-off of the Company's aerospace and ordnance businesses to Primex (the "Primex Spin-off") was an employee of the Company and whose employment is either transferred directly to Primex or terminated in connection with the Primex Spin-off, shall be fully vested and non-forfeitable as of the effective date of the Primex Spin-off.

(f) The Company Contribution Account of each Participant who immediately prior to the effective date of the sale of the Aegis business to HCC was an employee of the Company and whose employment is either transferred directly to HCC or terminated in connection with the sale of the Aegis business, shall be fully vested and non-forfeitable as of the effective date of the sale of the Aegis business.

(g) Notwithstanding the foregoing, the Company Contribution Account of each New Haven Release Date Employee shall be fully vested and non-forfeitable as of his or her scheduled release date.

(h) Notwithstanding the foregoing, the Company Contribution Account of each Participant who is defined as a Transferred Employee under Article V of the Purchase Agreement between Global Brass and Copper Acquisition Co. and Olin Corporation dated as of October 15, 2007 (the "Global Sale Agreement"), shall be fully vested and non-forfeitable as of the Closing Date specified in the Global Sale Agreement, as amended.

(i) Notwithstanding the foregoing (and after the merger of the Pioneer Plans into the Plan), the portion of a Participant's Company Contribution Account attributable to Pioneer Plan employer contribution amounts shall be fully vested and non-forfeitable as of the date such Participant has three Years of Service. If a Participant at Pioneer was 100% vested in his Pioneer Plan employer contribution amounts a of January 1, 2008, such Participant will be 100% vested in his Company Contribution Account regardless of the vesting schedule in Section 7.2(a). For purposes of this Section 7.2 with regard to Participants at Pioneer, Years of Service shall include service with Pioneer prior to its acquisition (as determined by reference to the vesting service provisions and records of the applicable Pioneer Plan). Notwithstanding the preceding, with regard to any transitional employees of the Pioneer acquisition transaction (as reflected in Schedules 5.13(a) and (b) of the acquisition/purchase agreement, provided that the related transition employee agreement was entered into with such employee), such transitional employees shall upon satisfying the applicable conditions of his or her transitional agreement be fully vested in his or her Company Contribution Account upon the transitional employee's termination of employment to the extent not already fully vested.

(j) Notwithstanding the foregoing (and after the merger of the Chase Plans into the Plan), the portion of a Participant's Company Contribution Account attributable to Chase Plan employer contribution amounts shall be fully vested and non-forfeitable.

(k) Notwithstanding the foregoing, the Company Contribution Account of each KA Steel Union Steel Participant employed as of January 1, 2014 shall be fully vested and non-forfeitable. The Company Contribution Account of each KA Steel Union Steel Participant hired after January 1, 2014 shall be vested as provided under Sections 7.2(a) and 7.2(b).

(l) Notwithstanding the foregoing, for each KA Steel Participant who participated in one of the KA Steel Plans at the time of the merger of the KA Steel Plans into the Plan shall be deemed to have one additional Year of Service solely for purposes of determining the vested percentage of such KA Steel Participant's Company Contribution Account under Section 7.2(b). For purposes of this Section 7.2 with regard to Participants at KA Steel, Years of Service shall include service with KA Steel prior to its acquisition (as determined by reference to the vesting service provisions and records of the applicable KA Steel Plan).

(m) Notwithstanding the foregoing, the Company Contribution Account of each Dow Transferee shall be fully vested and non-forfeitable. For avoidance of doubt, the Company Contribution Account of each Eligible Employee, excepting Dow Transferees, of the Olin Dow Subsidiary shall be vested as provided under Sections 7.2(a) and 7.2(b).

7.3 Vesting of Amounts Rolled Over or Transferred from Other Plans. Notwithstanding anything contained in the Plan to the contrary, (a) each Participant's Rollover Contribution Account shall be fully vested at all times; and (b) any amounts attributable to a Participant's accounts transferred from the Bridgeport Brass Savings and Investment Plan or the Apache Chemicals Pension and Profit Sharing Plans shall be fully vested at all times. Alternate vesting provisions may apply, as determined by the Administrative Committee in accordance with applicable law, to (i) any portion of a Participant's Account that has been transferred to the Plan from another plan pursuant to Section 3.6 or (ii) a Participant who was a participant in a plan that was merged into the Plan.

7.4 Forfeitures. The unvested portion of a Former Participant's Account shall be forfeited as of the earlier of the date as of which the Former Participant received a distribution of 100% of the vested portion of his Account pursuant to Article X or he incurs a five year Period of Severance. All such forfeited amounts, reduced by any forfeited amounts restored to Participants' Accounts pursuant to Section 7.5, shall be applied to reduce future contributions required of Participating Employers. To the extent there is forfeiture of only a portion of a Participant's unvested Account, such forfeiture shall not be made with respect to qualifying employer securities held under the Account until all other Account assets are first forfeited.

7.5 Repayment of Prior Distributions. If, as a result of a Participant's termination of employment, all or a portion of his Account is forfeited, such amount (unadjusted by any gains or losses) shall be subsequently restored to his Account if he is reemployed by a Participating Employer prior to incurring a five year Period of Severance and the individual repays the amount of the distribution he previously received from the Plan as a result of his termination of employment within five years of his date of reemployment. Such repayment shall be (a) equal to the amount of any cash plus the Current Market Value of any Company Stock included in the distribution on the Valuation Date coinciding with or next preceding the date of the distribution, (b) made in cash or in shares of Company Stock, based on the Current Market Value of such Company Stock on the Valuation Date coinciding with or next preceding the date of repayment and (c) invested in the same Funds to the extent possible and in the same amounts as were withdrawn from each Fund; provided, however, that any amounts that would be invested in any Fund that is no longer active or accepting new contributions shall be invested in the remaining available Funds at the direction of the Participant; provided, further, that the Investment Committee may provide for a default investment for such contributions (to the extent the Participant does not provide affirmative investment direction) which shall be an age-based retirement Fund with the date closest to the Participant's anticipated retirement date (assuming such person retires at age 65) (or such other Fund as may be designated by the Investment Committee). In the event an individual does not repay a prior distribution, the forfeited amount in his Account will not be restored and his Period of Continuous Service after his reemployment will not be considered in determining his vested interest in his Account attributable to contributions made prior to his Period of Severance.

ARTICLE VIII

WITHDRAWALS PRIOR TO TERMINATION OF EMPLOYMENT

8.1 Priority for Withdrawals. An Active Participant (including those who are on an authorized leave of absence or on layoff status) may make a withdrawal from his Account prior to termination of employment as provided in this Section 8.1. Withdrawals shall be taken from available amounts in such Participant's Account in the following order of priority:

(a) First, the principal amount of his unmatched Taxed Contributions made prior to 1987; provided, however, that if a Participant has attained age 50 he may elect to receive, either first or in addition to the amounts previously described, the amounts in his ESOP Account to the extent vested, except that no Participant who has not yet attained age 55 may withdraw any amounts from his ESOP Account if he has been a Participant in the Plan for fewer than 5 years unless such amounts are attributable to allocations made more than two years before the date of withdrawal.

(b) Second, the principal amount of his matched Taxed Contributions made prior to 1987;

(c) Third, the principal amount of his unmatched Taxed Contributions made after 1986 and earnings attributable to unmatched Taxed Contributions (whether or not made after 1986);

(d) Fourth, the principal amount of his matched Taxed Contributions made after 1986 and earnings attributable to matched Taxed Contributions (whether or not made after 1986);

(e) Fifth, amounts in his Company Contribution Account, to the extent vested; provided, however, that no amount in his Company Contribution Account may be withdrawn by a Participant who has been a Participant for fewer than five years unless such amounts are attributable to allocations made more than two years before the date of the withdrawal and further provided that no portion of an Aegis Retirement Contribution Account, Monarch Retirement Contribution Account, or Retirement Contribution Account may be withdrawn prior to termination of service;

(f) Sixth, in the case of a Participant who has attained age 59 1/2, all or any portion of his Tax Deferred Contribution Account and Roth 401(k) Contribution Account; and

(g) Seventh, in the event of financial hardship as defined in Section 8.3(b), all or any portion of his Tax Deferred Contribution Account excluding any earnings credited to his Tax Deferred Contribution Account after December 31, 1988 and Roth 401(k) Contribution Account, subject to the conditions described in Section 8.3(c).

No withdrawal may be made under any subsection above unless all amounts that may be withdrawn under all preceding subsections have been withdrawn; provided, however, that a Participant may elect not to receive the amounts in his ESOP Account under the special ESOP Account withdrawal rule applicable to Participants who have attained age 50, described in Section 8.1(a), above. The amount to be withdrawn shall be based on the Current Market Value of the investment as of the applicable Valuation Date immediately preceding the date of the distribution. Such distribution shall be made in cash; provided, however, that a withdrawal from a Participant's ESOP Account may be paid in shares of Company Stock if so elected by the Participant.

In accordance with procedures established by the Administrative Committee and in Section 10.3, to the extent required by law, a Participant who is eligible to receive a withdrawal may elect to have such withdrawal paid directly into an individual retirement account, individual retirement annuity or a qualified trust, provided that in the case of a rollover to a qualified trust, the terms of the related plan permit the acceptance of such distribution.

Notwithstanding the foregoing, if the Plan receives written notice of a contemplated divorce or QDRO or receives a domestic relations order, no withdrawals shall be permitted from the Participant's account except as provided in Section 10.6.

8.2 Penalties for General Withdrawals. The following paragraphs apply solely to Active Participants who have not yet attained age 50.

(a) A Participant may withdraw any amount up to the principal amount of his unmatched Taxed Contributions once during a Plan Year without penalty.

(b) If a Participant who has made a withdrawal pursuant to paragraph (a) above during a Plan Year makes a second withdrawal from his Account during such Plan Year, whether or not the withdrawal is in excess of the principal amount of his unmatched Taxed Contributions (other than for hardship as described in Section 8.3), he shall be suspended from having Tax Deferred Contributions made on his behalf and from making Taxed Contributions and Roth 401(k) Contributions for a period of twelve (12) months from the date of the first withdrawal (six (6) months on and after January 1, 2002).

(c) If a Participant makes a withdrawal of amounts in excess of the principal amount of his unmatched Taxed Contributions, other than for hardship as described in Section 8.3, he shall be suspended from having Tax Deferred Contributions made on his behalf and from making Taxed Contributions and Roth 401(k) Contributions for a period of one year from the date of withdrawal (six (6) months on and after January 1, 2002).

8.3 Hardship Withdrawals.

(a) A withdrawal for hardship described in Section 8.1(g) will be granted only if the withdrawal is made on account of hardship as defined in paragraph (b) below, and is necessary to satisfy an immediate and heavy financial need of the Participant as described in paragraph (c) below. The Administrative Committee, in its discretion, shall determine the existence of a hardship and the amount necessary to meet that need in accordance with the provisions of this Section 8.3 and criteria described in Treas. Reg. Section 1.401(k) 1 (d)(2) as applied to the Participant's applicable facts and circumstances.

(b) For purposes of this Section 8.3 and Appendix B, hardship means an immediate and heavy need to draw on financial resources to meet obligations incurred or to be incurred with respect to: (i) uninsured medical expenses (as defined in Code Section 213(d)) incurred or to be incurred by the Participant, his Spouse, non-spousal Beneficiaries, or dependents (as defined in accordance with the applicable provisions of Code Section 152); (ii) costs directly related to the purchase of a principal residence (excluding mortgage payments) of the Participant; (iii) the payment of tuition and related educational fees, room and board for the next 12 months of post secondary education for the Participant, his Spouse, non-spousal Beneficiary, children or dependents (as defined in accordance with the applicable provisions of Code Section 152); (iv) the prevention of the eviction of the Participant from his principal residence or to prevent foreclosure on the mortgage of his principal residence; (v) burial or funeral expenses for the Participant's deceased parent, Spouse, children, non-Spousal beneficiary or dependents (as defined in accordance with the applicable provisions of Code Section 152); (vi) the repair of damage to the Participant's principal residence that would qualify for the casualty deduction under Code Section 165; and (vii) other extraordinary expenses as determined by the Administrative Committee. Hardship shall also include any other expenses determined to constitute an immediate and heavy need under the Code Regulations.

(c) A withdrawal shall not be deemed to be necessary to satisfy a Participant's immediate and heavy financial need unless: (i) the withdrawal does not exceed the amount needed to satisfy the Participant's immediate financial need created by the hardship (including any taxes or penalties reasonably anticipated to result from the hardship withdrawal); (ii) the Participant has obtained all available distributions and discretionary withdrawals (including hardship distributions) and all nontaxable loans under this Plan and all other plans maintained by an Affiliated Company; (iii) the Participant is suspended from having Tax Deferred Contributions made on his behalf and from making Taxed Contributions and Roth 401(k) Contributions under this Plan or any other plan (other than a welfare plan or a plan described in Section 125 of the Code that provides welfare benefits) maintained by an Affiliated Company until the expiration of the 12 month period immediately following the receipt of the withdrawal (until the expiration of six (6) months for hardship distributions made on or after January 1, 2002) ; and (iv) for hardship withdrawals made prior to January 1, 2002 only, when Tax Deferred Contributions resume, the maximum dollar amount of the Participant's Tax Deferred Contributions shall be the applicable dollar amount specified in Code Section 402(g) reduced by the amount of such Participant's Tax Deferred Contribution for the taxable year in which the hardship withdrawal occurred.

8.4 Period of Suspension. A Participant who is suspended pursuant to Sections 8.2 or 8.3 will continue to be considered an Eligible Employee for purposes of the contributions made under Sections 3.1 and 3.4 and a Participant for purposes of the allocations made pursuant to Sections 5.2, 5.3, 5.4 and 5.5, and will continue to be credited with Years of Service during his continued employment, even though no Tax Deferred Contributions, Roth 401(k) Contributions or Taxed Contributions will be made on his behalf for the period of suspension.

8.5 Limitation on Withdrawals for Participants with Outstanding Loans. A Participant with an outstanding loan pursuant to Article IX may request a withdrawal pursuant to this Article VIII, but any such withdrawal shall be limited so that the value of the vested portion of his Account is not reduced below 200% of the balance of all outstanding loans as of the date of the withdrawal. For purposes of determining the limitation in the preceding sentence, a Participant's Account shall not include a Participant's Aegis Retirement Contribution Account, Monarch Retirement Contribution Account, and Retirement Contribution Account.

ARTICLE IX

LOANS TO PARTICIPANTS AND BENEFICIARIES

9.1 Loan Program. The Administrative Committee is authorized in its sole discretion to establish and maintain a loan program in accordance with Section 408(b)(1) of ERISA and related regulations and consistent with the provisions of this Article IX. Only Eligible Employees and Active Participants (i.e., an individual who is a Party in Interest as defined in Section (3)(14) of ERISA, hereinafter collectively referred to as "Eligible Borrowers") shall be eligible to participate in the loan program. The previous sentence notwithstanding, officers of the Company are Participants in the Plan excluded from the group of eligible employees who are Eligible Borrowers. Loans shall be processed and made in accordance with rules and procedures from time to time adopted by the Administrative Committee in its discretion. Such rules and procedures shall be in a written document and are incorporated herein by reference.

9.2 General Rules. Any Eligible Borrower with a vested interest in an Account Balance under the Plan may make an application to the Administrative Committee (or its delegate) for a loan. Loan applications shall be approved or denied by the Administrative Committee (or its delegate) within a reasonable period of time after receipt. Loans shall be made available to all Eligible Borrowers on a uniform and reasonably equivalent basis, without regard to an individual's race, color, religion, sex, age or national origin. In reviewing a loan application, only those factors which would be considered in a normal commercial setting by an entity in the business of making similar types of loans may be considered. Such factors may include the Eligible Borrower's creditworthiness and financial need. If approved, the Administrative Committee (or its delegate) shall direct the Trustee to make a loan to the Eligible Borrower. Any loan made to an Eligible Borrower shall be treated as a segregated investment of a portion of the Eligible Borrower's Account Balance. Notwithstanding the foregoing, if the Plan receives written notice of a contemplated divorce or QDRO or receives a domestic relations order, no loans shall be permitted from the Participant's Account except as provided in Section 10.6(c).

9.3 Amount. Loans shall be made in amounts approved by the Administrative Committee in its discretion. No loan shall be for less than Five Hundred Dollars ($500). A Participant may have only one loan outstanding at any given time. However, the loans that a Participant has as of August 15, 2012 will continue to remain in effect and subject to the original terms. A Participant may not request an additional loan until all loans outstanding on August 15, 2012 are repaid. No loan when added to the outstanding balance of all other loans from the Plan to the Eligible Borrower shall exceed the lesser of:

(1) Fifty Thousand Dollars ($50,000), reduced by the excess (if any) of the highest outstanding balance of loans from the Plan to the Eligible Borrower during the one-year period ending on the day before the date the loan is made, over the outstanding balance of loans from the Plan to the Eligible Borrower on the date the loan is made, or

(2) one-half (1/2) of the Eligible Borrower's vested Account Balance as of the valuation date coincident with or immediately preceding the date of the loan.

For purposes of determining the limitation in the preceding sentence, a Participant's Account shall not include a Participant's Aegis Retirement Contribution Account, Monarch Retirement Contribution Account, and Retirement Contribution Account. A Participant's Aegis Retirement Contribution Account, Monarch Retirement Contribution Account, and Retirement Contribution Account shall not be available for loan.

Any loans transferred to the Plan from any qualified defined contribution pension plan merged into this Plan (including, without limitation, the KA Steel Plans) shall count toward the limits on loans specified herein. In addition, for any loans so transferred to the Plan from a merged plan, the name of the Plan shall be deemed substituted for the name of the merged plan on any applicable loan notes and all other loan note terms shall remain the same. Notwithstanding any of the foregoing, the Administrative Committee may allow additional loans beyond the above maximum with respect to any merged plan (including, without limitation, the KA Steel Plans) or any group of Participants employed at a business that is acquired by the Company and specifically permitted participation herein; provided that the Administrative Committee determines that such additional loans are administratively feasible and such action is taken solely to accommodate prior loans under any merged plan or plans affected by such business acquisition.

9.4 Rate of Interest and Term of Loan. All loans shall be considered a segregated investment of the Trust Fund and shall bear a reasonable rate of interest to be determined by the Administrative Committee taking into consideration the interest rates being charged by regional and local banks, the prevailing prime rate and general economic conditions. The interest rate shall not exceed the maximum rate allowed by state or federal law; provided, however, that the Administrative Committee shall have no obligation to make loans during any period in which the maximum rate allowed by state or federal law would not permit the loan to bear a reasonable rate of interest in light of the prevailing economic circumstances. All loans shall be for a maximum of five (5) years or for such shorter term as the Administrative Committee may determine.

9.5 Security. All loans shall be secured by the pledge of the Eligible Borrower's vested Account Balance under the Plan and may be further secured by additional collateral acceptable to the Administrative Committee if the Administrative Committee determines, in a uniform and nondiscriminatory manner, that such additional collateral is necessary or desirable to ensure repayment of the loan. No more than fifty percent (50%) of an Eligible Borrower's Vested Account Balance determined as of the valuation date coincident with or immediately preceding the date of the loan may be used to secure a loan. In the event of default, foreclosure on the note and the attachment of the Plan's security interest in an Account Balance will not occur until a distributable event occurs under the Plan.

9.6 Repayment. All loans shall provide for substantially level amortization over the term of the loan, with payments of principal and interest paid through automatic payroll deductions; provided, however, that the Eligible Borrower may prepay the loan in full at any time without penalty and the Eligible Borrower shall be required to make repayment in full upon the Eligible Borrower's termination of employment. Notwithstanding the preceding, an Eligible Borrower shall be permitted to continue to make payments on an existing loan after termination of employment in accordance with and subject to the rules set by the Administrative Committee.

With regard to each Eligible Borrower who is defined as a Transferred Employee under Article V of the Global Sale Agreement, such Eligible Borrower shall be permitted to continue to make payments on an existing loan (or any new loan obtained pursuant to Section 9.1) after the Closing Date specified in the Global Sale Agreement, as amended, in accordance with and subject to the rules set by the Administrative Committee.

Notwithstanding any provision of the Plan to the contrary, an Eligible Borrower who (a) terminated employment with the Company or an Affiliated Company and became employed by HCC in connection with the Company's sale of the assets of the Aegis business, (b) has an outstanding loan from the Plan as of the date of his or her termination of employment with the Company or an Affiliated Company, and (c) does not withdraw any portion of his or her vested Account, shall be permitted to continue repayment of such Plan loan during his or her period of continuous service with HCC through automatic payroll deduction taken by HCC and remitted to the Company or an Affiliated Company in accordance with such procedures as may be established by the Administrative Committee and HCC from time to time.

To the extent permitted by law, repayments will be suspended during unpaid leaves of absence or layoffs of up to one year although interest will continue to accrue during these periods of suspension. Upon the Participant's return to employment, the accrued interest will be added to his outstanding loan balance and the individual's repayment schedule will be adjusted; provided, however, that the original term of the loan shall not be extended by virtue of such leave of absence. If a leave of absence or layoff exceeds one year, the outstanding loan balance will become immediately due and payable as of the end of the one year period. If an Eligible Borrower withdraws a portion or all of such individual's vested Account Balance or becomes entitled to payment of benefits under the Plan, such payments or withdrawals shall first be applied toward any outstanding loan balance (including accrued interest), with the excess, if any, paid directly to the individual.

ARTICLE X

DISTRIBUTIONS

10.1 Termination of Employment.

(a) If an Active Participant has a severance from employment (as such term is defined under Code Section 401(k)), or terminates employment on account of disability or death, upon filing an application therefor as prescribed by the Administrative Committee and subject to Section 9.6 hereof, the value of such Former Participant's Account, to the extent vested, shall be distributed to him, or if he is not living, to his Beneficiary, either in a lump sum or in installments, as the Participant (or his Beneficiary) has elected; provided, however, that the Administrative Committee shall direct the Trustee to distribute, in a lump sum, the Participant's entire Account as soon as practicable following his termination of employment if the value of the vested portion of the Participant's Account does not exceed $1,000. If the value of the vested portion of a Participant's Account exceeds the applicable small lump sum benefit amount (as provided in the preceding sentence), distributions shall be made or shall commence at such time as the Participant (or his Beneficiary) may elect in accordance with Section 10.4. With respect to distributions made on or after January 1,2002, for purposes of this subsection, the value of the Participant's vested Account Balance shall be determined without regard to that portion of the Account Balance that is attributable to Rollover Contributions (and earnings allocable thereto).

(b) Notwithstanding any provision of the Plan to the contrary that would otherwise limit a distributee's election under this Section 10.1(b), a distributee may elect, at that time and in the manner prescribed by the Administrative Committee, to have any portion of "eligible rollover distribution" paid directly to an "eligible retirement plan" specified by the distributee in a "direct rollover." An "eligible rollover distribution" is any distribution of all or any portion of the account balance to the credit of the distributee, except that an eligible rollover distribution does not include: any distribution that is one of a series of substantially equal periodic payments (not less frequently than annually) made for the life (or life expectancy) of the distributee or the joint lives (or joint life expectancies) of the distributee and the distributee's designated beneficiary, or for a specified period often (10) years or more; any distribution to the extent such distribution is required under Section 40l(a)(9) of the Code; for distributions made prior to January 1, 2002, the portion of any distribution that is not includable in gross income (determined without regard to the exclusion for net unrealized appreciation with respect to employer securities); and any distribution made on or after January 1,1999 that qualifies as a hardship distribution.

An "eligible retirement plan" is an individual retirement account described in Section 408(a) of the Code, an individual retirement annuity described in Section 408(b) of the Code (other than an endowment contract), an annuity plan described in Section 403(a) of the Code, or a qualified trust described in Section 401(a) of the Code, that accepts the distributee's eligible rollover distribution. For distributions made on or after January 1, 2002, an "eligible retirement plan" shall also include an annuity contract described in Section 403(b) of the Code, and an eligible deferred compensation plan described in Section 457(b) of the Code which is maintained by a state, political division of a state, or any agency or instrumentality of such a state or political subdivision thereof, which agrees to separately account for amounts transferred into such plan from this Plan. For distributions made on or after January 1, 2008, and subject to any applicable rules under Code Sections 402(c) and 408A, an "eligible retirement plan" shall also include a Roth IRA as described in Code Section 408A. The definition of 'eligible retirement plan' shall also apply in the case of a distribution to a surviving spouse, a non-spousal Beneficiary distributee, or a spouse or former spouse who is the alternate payee under a QDRO, as defined in Section 414(p) of the Code. However, in the case of an eligible rollover distribution made prior to January 1, 2002 to a surviving spouse or an eligible rollover distribution made to a non-spousal Beneficiary distributee, an "eligible retirement plan" is limited to an individual retirement account or individual retirement annuity in accordance with the Code and applicable law (including, without limitation, Code Section 402(c)(11)).

For distributions made after December 31, 2001, a portion of a distribution shall not fail to be an eligible rollover distribution merely because the portion consists of after-tax employee contributions which are not includible in gross income. Such portion, however, may be transferred only to an individual retirement account or annuity described in Section 408(a) or (b) of the Code, or is transferred to a qualified defined benefit pension plan (only for Plan Years after 2006) or to a qualified defined contribution plan described in Section 401(a) or 403(a) of the Code or to an annuity contract described in Section 403(b) of the Code that agrees to separately account for amounts so transferred (and earnings thereon), including separately accounting for the portion of such distribution which is includible in gross income and the portion of such distribution which is not so includible.

The Administrative Committee need not obtain evidence that a retirement plan had received an IRS determination letter in order to have a reasonable belief that a retirement plan is qualified under Code Section 401(a). A "direct rollover" is a payment by the Plan to the eligible retirement plan specified by the distributee. For purposes of this Section 10.1(b), a distributee includes an Employee or former Employee. In addition, the Employee's or former Employee's surviving spouse or non-spousal beneficiary (or other eligible distributee as defined under the Code and applicable law) and the Employee's or former Employee's spouse or former spouse who is an alternate payee under a qualified domestic relations order, as defined in Section 414(p) of the Code, are distributees with regard to the interest of such person.

(c) The value of any distribution shall be based on the Current Market Value of the Participant's Account.

10.2 Method of Distribution. Subject to Section 10.1(a), a Former Participant's Account shall be paid to him (or in the event of his death, to his Beneficiary) in a lump sum unless the Participant (or in the event of his death, his Beneficiary) elects to have the value of his Account paid in annual installments over:

(a) a fixed period of up to 15 years (but not exceeding the life expectancy of the Former Participant, or the joint and last survivor expectancy of the Former Participant and his Beneficiary); or

(b) if the Former Participant's life expectancy exceeds 15 years, the life expectancy of the Former Participant.

The amount to be paid to the Former Participant (or Beneficiary) in each installment shall be determined by multiplying the value of the account balances, determined in accordance with Section 10.1(c) as though the date of the installment were the distribution date, by a fraction, the numerator of which is one and the denominator of which is the number of installments remaining to be distributed. The life expectancy of the Former Participant and his Beneficiary will be calculated by use of the return multiples specified in Section 1.72-9 of the Income Tax Regulations. The life expectancy of a Former Participant and his Beneficiary may not be recalculated.

If a Former Participant who has elected to receive installments dies prior to receiving all such installments, any remaining installments will be paid when due to the Beneficiary, or if the Beneficiary elects, in a lump sum as soon as practicable following the Participant's death. In the event a Beneficiary dies while receiving installment payments (or prior to receiving the complete Account amounts), amounts remaining to be paid shall be paid in a lump sum to said Beneficiary's estate.

Alternate methods of distribution may apply to any portion of a Participant's Account that has been transferred to the Plan from another qualified plan pursuant to Section 3.6.

Former Participant may receive partial distributions from their Accounts prior to such Former Participant's Required Beginning Date.

10.3 Form of Distribution. Distributions under the Plan shall be made in the following manner:

(a) all distributions from other than the Olin Common Stock Fund shall be paid in cash, except that such amounts may, at the election of the distributee, be paid in Company Stock with any fractional interest in a share of Company Stock paid in cash;

(b) all distributions from the Olin Common Stock Fund shall be paid in Company Stock, except that any fractional interest in a share of Company Stock shall be paid in cash; provided that any distribution to any other distributee who so elects, shall be in cash as provided below.

10.4 Date of Distribution. Generally, distributions will be made as soon as practicable on or after the distribution date elected by the distributee; provided, however, that in the discretion of the Administrative Committee, distributions may be made or commence within sixty (60) days of the distribution date elected. Notwithstanding anything in the Plan to the contrary, distributions shall commence no later than the Participant's Required Beginning Date.

In the event of the Participant's death prior to his Required Beginning Date as described in the preceding paragraph, distribution of the Participant's Account shall be completed within five years after the Participant's death unless distribution is made over a period not extending beyond the life expectancy of the Beneficiary and either (a) the Participant's Beneficiary is his Spouse and payments begin no later than the date on which the Participant would have attained age 70 1/2 or (b) distribution begins within one year of the Participant's death.

10.5 Compliance with Applicable Law. Notwithstanding anything in the Plan to the contrary, distributions under this Plan shall be made in accordance with Code Section 401(a)(9) and any regulations issued thereunder (described more fully in Appendix A-2 hereof) and in accordance with Code Section 409(o). To the extent that any provision of the Plan is inconsistent with such section of the Code or such regulations, such Plan provision shall be disregarded. The assets of the Plan attributable to employer securities acquired by the Plan in a sale to which Code Section 1042 applies cannot accrue for the benefit of persons specified in Code Section 409(n) during the non-allocation period.

10.6 Distributions to Comply with Qualified Domestic Relations Order. In the case of any Participant with respect to whom the Plan has received a QDRO awarding an alternate payee all or any portion of the Participant's interest under the Plan, the following rules shall apply:

(a) Subject to Section 10.1(b), if necessary to comply with the terms of the QDRO, or if not prohibited by the terms of the QDRO and requested by the alternate payee, an amount shall be distributed to the alternate payee from the vested portion of the Participant's Account (net of any outstanding loans) sufficient to comply with the terms of the QDRO. Such amount shall be distributed to the alternate payee in a lump sum as soon as practicable and if the full amount required under the QDRO to be distributed from the Plan is so distributed, the alternate payee shall have no further interest in the Plan. If the Participant's vested interest (net of any outstanding loans) in the Plan is less than the amount necessary to comply with terms of the QDRO, no amount shall be distributed to the alternate payee pursuant to this Section 10.6 and amounts due under the QDRO to the Alternate Payee shall be paid in accordance with the terms of the QDRO and applicable law.

(b) In the event that the amounts due the alternate payee under a QDRO are not distributed to the alternate payee pursuant to paragraph (a) above, the alternate payee's interest shall be held in a separate account segregated from the Participant's Account, and the value of the Participant's Account shall be calculated without reference to such amounts segregated pursuant to this paragraph.

(c) In accordance with procedures established by the Administrative Committee, if a domestic relations order, as defined in Section 414(p)(1)(B) of the Code (including, in the Administrative Committee's discretion, a restraining order), is received, then no distribution, in-service withdrawal or loan from the Plan shall be made to the Participant until it is determined whether the domestic relations order constitutes a QDRO, but in no event shall such suspension of distributions, withdrawals and loans continue beyond the date which is 18 months following the receipt of such domestic relations order. Notwithstanding the above, if a distribution from the Plan to the Participant or his Beneficiary is required to comply with applicable law under ERISA or the Code, then a distribution shall be made to the extent necessary to comply with such law.

10.7 Distribution Rights Pertaining to Stock Distributions.

(a) A Participant or Beneficiary who receives a distribution of Company Stock from the Plan which at the time of distribution is not publicly traded or is subject to any restrictions on disposition under any federal or state securities law or any regulation thereunder, or pursuant to any agreement affecting such Stock, which would make such Stock not as freely tradable as stock not subject to such restrictions shall have a "put option" with respect to such Stock upon terms no less favorable than the following:

(i) Upon receipt of the Stock, the distributee shall have sixty (60) days to require, by filing written request with the Administrative Committee, that the Company (or if the Trustee so elects, the Trustee) repurchase the Stock at its fair market value. If the put option is not exercised within the applicable period, it will temporarily lapse;

(ii) If there is a temporary lapse of the put option under (i), above, after the close of the Plan Year in which such lapse occurs the Company shall determine the value of the Stock at the end of that Plan Year and notify the distributee of such value, who will then have sixty (60) days to require, by filing written request with the Administrative Committee, that the Company (or if the Trustee so elects, the Trustee) repurchase the Stock. If the put option is not exercised in the applicable period it will permanently lapse.

(iii) If the Stock is contributed by a distributee to an IRA, the trustee of the IRA will have, and may exercise, in the same manner, the put option that the distributee otherwise would have had.

(iv) Payment for Company Stock sold under a put option may be made in a lump sum or in installments, with interest at a reasonable rate determined by the Company and adequate security provided on any unpaid balance. With respect to any installment payments, such installment payments must be made in substantially equal, periodic payments (at least annually over a period not to exceed 5 years). Payment in respect of a put option must begin no later than 30 days after the put option is exercised.

On a uniform and nondiscriminatory basis, the Administrative Committee from time to time in its sole discretion may grant put options on a more simplified basis so long as such options are not less favorable to Participants than as provided above.

(b) Company Stock distributions under the Plan shall be in whole shares, containing such legends and upon such terms and conditions and with such restrictions as the Administrative Committee may determine to be necessary or appropriate to satisfy requirements of the Securities and Exchange Commission or other applicable laws or regulations, or to provide the Company (or the Trustee), if so requested, with a right of first refusal with respect to the Stock being distributed, such right to be exercisable only if the Stock is not publicly traded at the time the right may be exercised. With respect to such right of first refusal, (i) when a Participant receives an offer by a third party to buy such Company Stock, the Participant must notify the Company (and Trustee) of the written offer by the third party to purchase the securities, and (ii) the Company (or Trustee) has 14 days to match the offer by the third party or to pay, if greater, the fair market value of the securities (as determined under Code Section 4975). The order of priority for the right of first refusal would be the Company, then the Trustee.

(c) Except as otherwise provided in this Section 10.7, no Company Stock shall be subject to a put, call, or other option, or buy sell or similar arrangement while held in the Fund or at the time of distribution therefrom.

(d) The protections and rights contained in this Section 10.7 shall be nonterminable and, accordingly, shall continue to exist, even if the Plan ceases to be an employee stock ownership plan as defined in Section 4975(e)(7) of the Code.

ARTICLE XI

TRUST FUND

11.1 Trust Agreement. In order to implement the Plan, the Company shall enter into one or more Trust Agreements pursuant to which all the funds of the Plan shall be held by one or more Trustees in one or more trusts. Under no circumstances shall any part of the corpus or income of the trust fund established under the Plan be used for, or diverted to, purposes other than for the exclusive benefit of the Participants and their Beneficiaries, except as provided in Section 11.3. The Company, Trustee or any other entity does not in any way guarantee the trust(s) established under the Plan from loss or depreciation. The liability of the Company, Trustee or the Participating Employers to make any payment under the Plan will be limited to the assets held by the Trustee that are available for that purpose.

11.2 Trustee. The Investment Committee may remove the Trustee at any time for any reason upon the notice required under the Trust Agreement, and if the Trustee resigns or is removed, the Investment Committee shall designate a successor Trustee.

11.3 Return of Contributions. No contribution to the Plan shall be refunded to a Participating Employer unless such contribution was:

(a) conditioned upon the tax deductibility of such contribution and such contribution is not deductible, and it shall be presumed that all contributions are conditioned upon deductibility; or

(b) made as a result of a mistake of fact.

Such refund shall be made, if requested by a Participating Employer in writing, within one year from the date a contribution was made as a result of a mistake of fact, or from the date of disallowance of a deduction (or other applicable date) as the case may be. Any contribution refunded as provided above shall be adjusted to reflect its proportionate share of the trust fund's loss, if any, but shall not be adjusted to reflect its share of the trust fund's gain, if any.

ARTICLE XII

ADMINISTRATION

12.1 Administrative Committee. The Pension and CEOP Administrative Committee, with membership and charter as may be established by the Company from time to time, shall be one of the Plan's two named fiduciaries and shall be the administrator of the Plan within the meaning of Section 3(16)(A) of ERISA. The Administrative Committee shall administer the Plan in accordance with its terms and shall have all the powers necessary to carry out the provisions of the Plan. The Administrative Committee, or its agent or delegate, has the absolute authority and sole discretion to interpret the terms of the Plan, including the Plan's eligibility provisions and its provisions relating to qualification for and accrual of benefits. The Administrative Committee's decisions shall be final and binding on all persons seeking benefits. Benefits shall only be paid under this Plan only if the Administrative Committee, in its sole discretion, determines that such person is entitled to them. Any exercise of discretion by the Administrative Committee shall be exercised in a nondiscriminatory manner as applied to similarly situated individuals. Unless the Company determines otherwise, the Administrative Committee shall have no fiduciary responsibility relating to the selection of investment options and other asset management matters under the Plan.

12.2 Investment Committee. The Investment Committee, with membership and charter as may be established by the Company from time to time, shall be the Plan's named fiduciary with respect to the selection of Funds and all other matters pertaining to the investment and management of Plan assets.

12.3 Delegation. Each of the Investment Committee and Administrative Committee have the authority to delegate any of their powers or duties to any other person. Any such person may further delegate its powers or duties to another person. Unless otherwise expressly provided, any delegation or subsequent delegation shall include the same full, final and discretionary authority that the delegating party has and any decisions, actions or interpretations made by any delegate shall have the same ultimate binding effect as if made by the delegating entity.

12.4 Action by Company. The Board of Directors, the Compensation Committee of the Board of Directors, or the Benefit Plan Review Committee (or any of their respective delegates) may act on behalf of the Company with respect to actions or matters reserved to the Company in this Plan; provided that each of these have the authority to delegate any of their powers or duties to any other person. Any such person may further delegate its powers or duties to another person. Any delegation or subsequent delegation shall include the same authority that the delegating party has, except as otherwise expressly provided in any delegation.

12.5 Employment of Agents. The Administrative Committee and the Investment Committee may employ such legal, medical, insurance, accounting, actuarial or other experts as it deems necessary or desirable, in its sole discretion, in carrying out the provisions of the Plan.

12.6 Fiduciary Responsibilities. The Administrative Committee and the Investment Committee are the Plan's named fiduciaries and have the fiduciary duties set forth herein. The Administrative Committee and the Investment Committee, together with the Trustee, have been designated to carry out all fiduciary responsibilities under ERISA with respect to the Plan, except for those responsibilities specifically delegated to another person.

The Company may allocate other fiduciary responsibilities among the fiduciaries named in the Plan or may designate persons other than named fiduciaries to carry out fiduciary responsibilities.

Any of the fiduciaries of the Plan may, by agreement among themselves, allocate specific responsibilities among themselves or delegate to other persons all or such portion of their fiduciary duties hereunder, as they, in their sole discretion, shall decide, other than those granted to the Trustee under the Trust Agreement. The Company may purchase insurance to cover the potential liability of all persons who serve in a fiduciary capacity (as defined in ERISA or the Plan) with regard to the Plan.

12.7 Compensation. No member of the Administrative Committee or Investment Committee shall receive any compensation for his services as such. Each member of such Committees and each other Fiduciary of the Plan shall be bonded as required by ERISA.

12.8 Committee Liability. The members of the Administrative Committee and Investment Committee shall use the degree of care, skill, prudence and diligence in carrying out their duties that a prudent man, acting in a like capacity and familiar with such matters, would use in his conduct of a similar situation.

Except as provided in ERISA or in the Regulations, in administering the Plan neither a member of the Administrative Committee or Investment Committee, nor a Participating Employer nor any director, officer or employee thereof, shall be liable for any acts of omission or commission, except for his or its own individual, willful and intentional malfeasance or misfeasance and each Participating Employer, its officers, directors and Employees and any member of the such Committees shall be entitled to rely conclusively on all tables, valuations, certificates, opinions and reports which shall be furnished by any actuary, accountant, Trustee, insurance company, counsel or other expert who shall be employed or engaged by the Participating Employer or such Committees.

To the maximum extent permitted by law, no member of the Administrative Committee or Investment Committee or officer, employee or director of the Company or any Participating Employer to whom any duty or power relating to the administration or interpretation of the Plan or to the management and control of the assets of the Plan may be delegated or allocated shall be personally liable by reason of any contract or other instrument executed by him or on his behalf in his capacity as a fiduciary of the Plan nor for any action taken or omitted or mistake of judgment made in good faith, and the Company (or the appropriate Participating Employer) shall indemnify and hold harmless, directly from its own assets (including the proceeds of any insurance policy the premiums of which are paid from its own assets) against any cost or expense (including counsel fees) or liability (including any sum paid in settlement of a claim with the approval of the Company or applicable Participating Employer) arising out of any act or omission to act in connection with the Plan unless arising out of such person's own fraud or bad faith.

12.9 Reports to Participants. At least quarterly each Plan Year (or at such other times as required by applicable law or at such other times as the Administrative Committee may decide), each Participant shall be furnished a written statement setting forth the value of his Account together with such additional information as determined by the Administrative Committee. Such statement shall be provided in a manner determined by the Administrative Committee.

12.10 Administrative Expenses.

(a) All reasonable and proper expenses incurred in the administration of the Plan shall be paid from the Trust Fund, unless paid by the Company or Participating Employer(s); provided, however, the Company or the Participating Employer(s) may pay any of such expenses or reimburse the Trust Fund for any payment, or the Trust Fund may reimburse the Company or the Participating Employer(s) for any payment the Company or the Participating Employer(s) has paid (without interest). The payment by the Company or the Participating Employer(s) of any particular expense for a Plan Year shall not be deemed an election to pay that or any other expense in that or any subsequent Plan Year.

(b) To the extent that expenses are paid from the Trust Fund, the Administrative Committee shall determine how such expenses are to be allocated. Without limitation, expenses may be charged directly against individual Participant Accounts, against the assets of investment funds (as may be determined by the Investment Committee) or as otherwise determined by the Administrative Committee. The Administrative Committee is authorized to establish administrative fees which may be charged against a Participant's Account.

(c) Without limitation, (i) expenses may be paid from a clearing or other account, and may be accrued for, based on estimated expenses, against the Plan investment funds or Participant Accounts during any period determined by the Administrative Committee, and paid as and when determined by the Administrative Committee, and (ii) amounts accrued during a Plan Year may be used to pay expenses incurred in a prior, current or future Plan Year, and true-ups may be directed by the Administrative Committee from time to time if, to the extent it deems them necessary or desirable.

(d) Without limiting the foregoing, and subject to change:

(I) All brokerage costs, transfer taxes and similar expenses incurred in connection with the investment and reinvestment of the Fund and all taxes of any kind whatsoever which may be levied or assessed under existing or future laws upon or in respect of the Trust Fund shall be paid from the Fund, and, until paid, shall constitute a charge upon the Trust Fund.

(II) Trustee fees, investment management fees, commissions and related Plan administrative expenses will be incorporated into the fees associated with the Funds made available under the Plan. In addition, fees associated with the self-directed brokerage feature will be charged directly to the affected Participant's account, and the account of each Participant applying for a Plan loan will be charged an application fee ($50 per loan as of March 1, 2001, subject to change). No commissions will be charged on purchases of Company Stock directly from a Participating Employer or from Accounts in the Plan.

12.11 Special Fiduciary Provisions Concerning Employer Stock. The Trustee shall adopt procedures designed to safeguard the confidentiality of information relating to the purchase, holding, and sale of securities, and the exercise of voting, tender and similar rights with respect to such securities by Participants (and Beneficiaries), except to the extent necessary to comply with Federal laws or state laws not preempted by ERISA. The Administrative Committee shall ensure that the foregoing procedures are sufficient to safeguard the confidentiality of such information and such procedures are being followed.

ARTICLE XIII

VOTING AND TENDER OFFERS

13.1 Voting of Company Stock. Each Participant (or Beneficiary in the event of the death of the Participant) is, for the purposes of this Section 13.1, hereby designated a named fiduciary within the meaning of Section 402(a)(2) of ERISA, with respect to the Company Stock allocated to his Account and he may direct the Trustee as to the manner in which the Company Stock represented by the Company Stock portion of his Olin Common Stock Fund Accounts is to be voted.

Before each annual or special meeting of shareholders of the Company, there shall be sent to each Participant, and in the event of the Participant's death, his Beneficiary, a copy of the proxy solicitation material for such meeting, together with a form requesting instructions to the Trustee on how to vote the Company Stock allocated to such Participant's or Beneficiary's Account. Upon receipt of such instructions, the Trustee shall vote such shares as instructed, determined separately with respect to shares of Company Stock. In lieu of voting fractional shares as instructed by Participants or Beneficiaries, the Trustee may vote the combined fractional shares of each type of Company Stock to the extent possible to reflect the direction of Participants or Beneficiaries with allocated fractional shares of Company Stock. Subject to any countervailing fiduciary duties that may require the Trustee to exercise its independent fiduciary judgment to the contrary, the Trustee shall vote shares of Company Stock allocated to Accounts under the Plan for which the Trustee received no valid voting instructions in the same manner and in the same proportion as the shares of Company Stock with respect to which the Trustee received valid voting instructions. Instructions to the Trustee shall be in such form and pursuant to such regulations as the Administrative Committee may prescribe.

13.2 Tendering Company Stock.

(a) The provisions of this Section 13.2 shall apply in the event any person (other than the Company), either alone or in conjunction with others, makes a tender offer, or exchange offer, or otherwise offers to purchase or solicits an offer to sell to such person one percent or more of the outstanding shares of a class of Company Stock held by the Trustee hereunder (herein jointly and severally referred to as a "tender offer". As to any tender offer, each Participant (or Beneficiary in the event of the death of the Participant), as a named fiduciary within the meaning of Section 402(a)(2) of ERISA, shall have the right to determine whether shares held subject to the Plan will be tendered. Participant determinations under this section shall be governed by Section 12.11 of the Plan.

(b) A Trustee may not take any action in response to a tender offer except as otherwise provided in this Section 13.2. Each Participant (or Beneficiary in the event of the death of the Participant) is, for all purposes of this Section 13.02, hereby designated a named fiduciary within the meaning of Section 402(a)(2) of ERISA, with respect to the shares of Company Stock allocated to his Account, and he may direct the Trustee to sell, offer to sell, exchange or otherwise dispose of the Company Stock allocated to such individual's Account in accordance with the provisions, conditions and terms of such tender offer and the provisions of this Section 13.02. Such instructions shall be in such form and shall be filed in such manner and at such time as the Trustee may prescribe.

(c) The Trustee shall sell, offer to sell, exchange or otherwise dispose of the Company Stock allocated to the Participant's or Beneficiary's Account with respect to which it has received directions to do so. The proceeds of a disposition directed by a Participant or Beneficiary from his Account under this Section 13.2 shall be allocated to such individual's Account and be governed by the provisions of Section 13.2(e) or other applicable provisions of the Plan and/or the Trust Agreement.

(d) To the extent to which Participants and Beneficiaries do not issue valid directions to the Trustee to sell, offer to sell, exchange or otherwise dispose of the Company Stock allocated to their Account, such individuals shall be deemed to have directed the Trustee that such shares remain invested in Company Stock subject to all provisions of the Plan.

(e) To the extent possible, the proceeds of a disposition of Company Stock in an individual's Account pursuant to a tender offer as described in this Section 13.2 shall be reinvested by the Trustee in any substituted shares of Company Stock (or, if stock of an affiliated company is substituted, then in such substituted shares of the affiliated company) as expeditiously as possible in the exercise of the Trustee's fiduciary responsibility. In the event that Company Stock is no longer available to be acquired following a tender offer, the Company may direct the substitution of new employer securities for the Company Stock or for the proceeds of any disposition of Company Stock. Pending the substitution of new employer securities or the termination of the Plan and trust, cash proceeds from the tender offer held in the trust fund shall be invested in short-term securities issued by the United States of America or any agency or instrumentality thereof.

ARTICLE XIV

AMENDMENT AND TERMINATION

14.1 Amendment.

(a) Subject to the terms of any applicable collective bargaining agreement, the Company may at any time, and from time to time, amend the Plan and such amendment shall be binding on all Participating Employers, Participants and Beneficiaries.

(b) Notwithstanding anything herein to the contrary, if an applicable vesting schedule is amended, a Participant who has completed three (3) Years of Service as of the expiration of the election period described below may elect to be subject to the vesting schedule in effect prior to the change in the vesting schedule. Such election must be made during the period which begins on the date on which the amendment changing the vesting schedule is adopted and which ends on the latest of the following dates:

(1) the date which is sixty (60) days after the date on which the Plan amendment is adopted;

(2) the date which is sixty (60) days after the date on which the Plan becomes effective;

(3) the date which is sixty (60) days after the date the Participant is issued written notice of the Plan amendment by the Company; or

(4) such later date as may be specified by the Company.

The election provided for in this Section 14.1(b) shall be irrevocable when made.

(c) Notwithstanding the foregoing, the Company shall have the duty and power to revise the Plan or Appendices, as well as addenda or amendments thereto, to correct errors, including but not limited to scrivener's errors, to the extent such correction is necessary to reflect the intent of the Plan; provided that such correction shall be applied as if included in the original provisions.

14.2 Termination.

(a) The Plan is entirely voluntary on the part of the Company and other Participating Employers. Subject to the terms of any applicable collective bargaining agreement, the Company reserves the right at any time to terminate the Plan, the Trust Agreement and the trust hereunder or to suspend, reduce or partially or completely discontinue contributions thereto. To the extent required by law, in the event of such termination or partial termination of the Plan or complete discontinuance of contributions, the interests of the affected Participants shall automatically become nonforfeitable and, at the election of the Company, such amounts shall either (i) continue to be held in the trust fund until distributed as provided in Section 10.01 or (ii) to the extent permitted by law, be distributed to such Participants in the same manner as if their employment had been terminated.

(b) In the event of a complete termination of the Plan or the complete discontinuance of contributions, any forfeitures not previously applied in accordance with Section 7.4 shall be credited ratably to the Accounts of all Participants in proportion to the value of the Participants' Accounts as of the date of termination or complete discontinuance of contributions.

14.3 Termination of a Participating Employer's Participation. Without affecting the continuing participation in the Plan of the Company or any other Participating Employer, the Company, with or without cause, may terminate the participation of any Participating Employer in the Plan.

ARTICLE XV

MISCELLANEOUS PROVISIONS

15.1 Nonalienation of Benefits. Except (a) as may be required to comply with a qualified domestic relations order in accordance with Code Section 414(p); (b) on or after August 5, 1997, as may be permitted under Code Section 401(a)(13)(C); or (c) to the extent a Participant's Account is used as security for a loan from the Plan, any benefit that may be or become payable under the Plan shall not be subject in any manner to anticipation, alienation, sale, transfer, assignment, pledge, encumbrance or charge, and any attempt to anticipate, alienate, sell, transfer, assign, pledge, encumber or charge any such benefits shall be void; and any such benefit shall not in any manner be liable for or subject to the debts, contracts, liabilities, engagements or torts of the person entitled to such benefit, nor shall it be subject to attachment or legal process for or against such person.

If any person entitled to any benefit under the Plan shall become bankrupt or shall attempt to alienate, sell, transfer, assign, pledge, or encumber such benefit, such benefit shall, in the sole discretion of the Administrative Committee, cease and terminate, and in that event the Administrative Committee shall cause such benefit, or any part thereof, to be held or applied for the benefit of such person, his Spouse, children or other dependents, or all or any of them, in such manner as the Administrative Committee shall determine.

15.2 Benefits Paid Solely from the Trust Fund. All benefits under the Plan are to be paid or provided solely from the trust fund and the Company nor any of the Participating Employers assumes no liability or responsibility therefor.

15.3 No Contract of Employment. The Plan shall not be deemed to constitute a contract between any Participating Employer and any Participant or to be a consideration for, or an inducement for, the employment of any individual by any Participating Employer. Nothing contained in the Plan shall be deemed to give any individual the right to be retained in the service of any Participating Employer or to interfere with the right of any Participating Employer to discharge or to terminate the service of any individual at any time without regard to the effect that such discharge or termination might have upon any rights that he might have under the Plan.

15.4 Incompetency. If a Participant or any other person entitled to any payment under the Plan is unable to care for his affairs because of illness or accident or any other reason, any such payments due may, unless claim shall have been made therefor by a duly appointed guardian, conservator, committee or other legal representative, be paid by the Administrative Committee to the Spouse, child, parent or other blood relative or to any person deemed by the Administrative Committee to have incurred expenses for such Participant or other person entitled to payments under the Plan, and any such payment so made by the Administrative Committee shall be a complete discharge of the liabilities of the Plan therefor.

15.5 Missing Recipients. If within three years after any benefit is payable under the Plan, the Administrative Committee is unable to make payment because the identity and/or whereabouts of the Participant (or Beneficiary) cannot be ascertained, notwithstanding the mailing of due notice to any last known address or addresses, the Administrative Committee shall direct that such benefit or distribution, and all further benefits or distributions with respect to him, shall be used to reduce future contributions by Participating Employers. Such benefit shall be restored (in an amount equal to the amount forfeited) upon proper claim made by such Participant (or Beneficiary) prior to the termination of the Plan. Benefits restored under this Section 15.5 shall be made first from forfeitures arising under this Section; and, if such forfeitures are insufficient, from additional contributions by Participating Employers made in order to restore such benefits.

15.6 Mergers, Consolidations and Transfers of Plan Assets

(a) In the case of any merger or consolidation of the Plan with, or transfer of assets or liabilities of the Plan to, any other plan, each Participant shall (if such other plan were then to terminate) be entitled to receive a benefit immediately after such merger, consolidation or transfer that shall be at least equal to the benefit that he would have been entitled to receive immediately before such merger, consolidation or transfer (if the Plan had then terminated).

(b) Each Participant who is defined as a Transferred Employee under Article IX of the Asset Purchase Agreement by and between Olin Corporation and the Arco Chemical Company, dated as of October 9, 1996 (the "Agreement"), may elect to transfer such Participant's entire account balance (including any Participant loan, but subject to any applicable qualified domestic relations order) to the Section 401(k) savings plan sponsored by Arco covering such employees, provided, however, with the exception of any account receivable in the form of a Participant loan, the account balance will be transferred in cash, and not in kind.

(c) Each Participant who immediately prior to the effective date of the Primex Spin-off was an employee of the Company and whose employment is transferred directly to Primex shall have a one-time right to elect to transfer such Participant's vested account balance to the Section 401(k) savings plan established and maintained by Primex for the benefit of its employees (the "Prime Plan"). This elective transfer option is intended to and shall comply with the provisions of Treas. Reg. Section 1.411(d)-4, Q&A-3(b). The election to transfer shall be entirely voluntary, but the amount transferred must equal the Participant's entire non-forfeitable accrued benefit under the Plan. After the transfer, the Participant's account balance under the Prime Plan will be fully vested and non-forfeitable. Participants who do not elect to transfer their account balances to the Prime Plan, shall continue to participate in this Plan in accordance with its terms.

(d) Each Participant who is defined as a Transferred Employee under Article V of the Global Sale Agreement shall have a one-time right to elect (in the time, manner and form determined by the Administrative Committee) to transfer such Participant's vested account balance to the Section 401(k) savings plan established and maintained by Global Brass and Copper Acquisition Co. for the benefit of its employees. The election to transfer shall be entirely voluntary, but the amount transferred must equal the Participant's entire non-forfeitable accrued benefit under the Plan. Participants who do not so elect to transfer their account balances shall continue to participate in this Plan in accordance with its terms.

15.7 Claim Procedures. The provisions of this Section 15.7 shall be effective for claims filed on or after January 1, 2002. In order to receive any distribution or other benefits under the Plan, a Participant or Beneficiary must complete the appropriate benefit application procedure prescribed by the Administrative Committee. If a claim for benefits is denied in whole or in part by the Administrative Committee, the claimant shall be given written notice thereof within ninety (90) days following receipt of the claim by the Plan. The Administrative Committee determines that an extension is necessary, it shall notify the claimant of the results for the extension before the end of the initial ninety (90) day period. The extended period may not exceed one hundred eighty (180) days after the date of the filing of the claim.

A notice of adverse benefit determination must be in written or electronic form. Such notice shall set forth, in a manner calculated to be understood by the claimant:

(a) the reasons for denial of the claim;

(b) a reference to the particular provisions of the Plan on which denial of the claim is based;

(c) a statement as to any additional facts or information necessary to perfect the claim and an explanation as to why the same is required; and

(d) a description of the Plan's procedures hereinafter set forth for review of the denial of the claim, and a statement regarding the claimant's right to bring a civil action under ERISA Section 502(a) following an adverse benefit determination on appeal.

If a claim for benefits relates to benefits because of disability under the Plan, and the claim is denied in whole or in part by the Administrative Committee, the claimant shall be given written notice thereof within forty-five (45) days following receipt of the claim by the Plan. This period may be extended by the Administrative Committee for up to thirty (30) days, provided that the Administrative Committee determines that such an extension is necessary due to matters beyond the control of the Plan and notifies the claimant, prior to the expiration of the initial forty-five (45) day period, of the reasons for the extension. If, prior to the end of the first thirty (30) day extension period, the Administrative Committee determines that, due to matters beyond the control of the Plan, a decision cannot be rendered within that extension period, the period for making the determination may be extended for up to an additional thirty (30) days, provided that the Administrative Committee notifies the claimant, prior to the expiration of the first thirty (30) day extension period, of the reasons for the extension. A notice of extension under this paragraph shall specifically explain the standards on which entitlement to a benefit is based, the unresolved issues that prevent a decision on the claim, and the additional information needed to resolve those issues, and the claimant shall be afforded at least forty-five (45) days within which to provide the specified information (the period for making the benefit determination shall be toned from the date on which the notification of the extension is sent to the claimant until the date on which the claimant responds to the request for additional information).

Every person whose claim for benefits under the Plan is denied in whole or in part by the Administrative Committee shall have the right to request a review of such denial. Such review shall be granted upon written request therefor filed by the claimant with the Administrative Committee within sixty (60) days following receipt of the notice of the denial (within one hundred and eighty (180) days for disability benefit claims). Such review shall be conducted by the Administrative Committee (or another committee to be designated by the Company). For any review by the Administrative Committee, the claimant, in person or by duly authorized representative, may submit written comments, documents, records and other information related to the benefit claim on appeal. The claimant shall be provided, upon request and free of charge, access to and copies of all documents, records and other information relevant to the benefit claim. The review on appeal will consider all comments, documents, records and other information submitted by the claimant without regard to whether such information was submitted or considered in the initial benefit determination.

The Administrative Committee shall decide the matter with reasonable promptness and in any event within sixty (60) days (forty-five (45) days for disability benefit claims) after receipt of the appeal. If Administrative Committee determines that an extension is necessary, the Administrative Committee shall notify the claimant of the reasons for the extension before the end of such initial period. The extended period may not exceed one hundred and twenty (120) days (ninety (90) days if the claim relates to disability benefits) following receipt of a request for review. Its decision shall be in written or electronic form, and, in the event of an adverse benefit determination, shall set forth, in a manner calculated to be understood by the claimant, (i) the specific reasons for the decision, (ii) the provisions of the Plan on which the determination is based; (iii) a statement that the claimant is entitled to receive, upon request and free of charge, access to and copies of all documents, records and other information relevant to the benefit claim; and (iv) a statement regarding the claimant's right to bring a civil action under ERISA Section 502(a).

15.8 Cooperation of Participants. In order to receive any benefits under the Plan, a Participant or Beneficiary must furnish to the Administrative Committee such documents, evidence, data or information as it considers necessary or desirable for the purpose of administration of the Plan. The records of the Administrative Committee (or if applicable, the records of a prior plan administrator of a Prior Plan) as to an Employee's or Participant's period of employment, service, termination and reason therefor, leave of absence, reemployment and compensation, will be conclusive on all persons unless determined to the Administrative Committee's satisfaction to be incorrect.

15.9 Applicable Law. All questions pertaining to the construction, validity and effect of the Plan shall be determined in accordance with the laws of the Commonwealth of Virginia (without giving effect to its principles of conflicts of law), to the extent such laws are not preempted by ERISA.

15.10 Gender and Number. In the construction of the Plan, the masculine shall include the feminine and the singular shall include the plural in all cases where such meanings would be appropriate.

15.11 Headings. The headings of Articles and Sections are included solely for convenience of reference and shall have no effect upon the meaning of the provisions hereof.

15.12 Veterans' Rights Upon Re-Employment.

Notwithstanding any provision of this plan to the contrary, effective for reemployments commencing on or after December 12, 1994, contributions, benefits and service credit with respect to qualified military service will be provided in accordance with Section 414(u) of the Code.

Effective January 1, 2007, notwithstanding any provision of the Plan to the contrary, in the case of a Participant who dies while performing qualified military service (as defined in Code Section 414(u)), the

Beneficiaries of such Participant are entitled to any additional benefits (other than benefit accruals relating to the period of qualified military service) provided under the Plan had such Participant resumed and then terminated employment on account of death.

Effective January 1, 2009, notwithstanding any provision of the Plan to the contrary, any differential wage payments (as defined in Code Section 3401(h)(2)) received by a Participant shall be treated as compensation for purposes of Code Section 415 under Section 3.7 (but not for purposes of determining contributions and benefits under the Plan).

15.13 Statute of Limitations & Mitigation. After exhausting the Plan's administrative claim and appeal provisions, an individual wishing to bring a lawsuit in either state or federal court challenging a claim denial must commence the lawsuit no later than six months after the individual receives a final denial letter indicating the individual has exhausted his or her administrative appeals and has the right to file a lawsuit. In addition to this six month deadline that applies to filing a lawsuit after the claims and appeals procedures are exhausted, a general time limitation shall apply to all lawsuits involving all types of Plan issues. An individual must commence any such lawsuit involving Plan claims no later than two years after the individual first receives information that constitutes a clear repudiation of the rights the individual is seeking to assert (i.e., the underlying event or issue that should have triggered the individual's awareness that his or her rights under the Plan may have been violated). Although any period of time when an individual's claim is in the claims procedure described above (i.e., the time between when an individual files a claim for benefits with the Administrative Committee and the time the individual receives a final determination letter from the Administrative Committee) does not count against the two-year period, once the claims procedure process is completed, the two year period will continue running from the point at which it was tolled.

In order to mitigate any damages or other negative effects, individuals must always carefully review their account statements, confirmations, payroll records (e.g., for deductions and contributions made to the plan) and any other records relating to the Plan, and report any discrepancies or other concerns within 30 days of the date of the applicable record through the procedures discussed in the summary plan description. An individual must file a claim under the Plan's claim procedures if his or her concerns cannot be resolved within this time. Neither the Company, the Plan, the Administrative Committee, nor any of their agents or employees will be responsible for damages or other negative effects incurred by an individual caused by such individual's failure to follow these requirements and procedures. In order to raise an issue in any legal action related to the claim, an individual must have clearly raised such issue during the claims and appeals procedure.

If a legal action begun against the Trustee, the Company, an Affiliated Company or an Participating Employer by or on behalf of any person results adversely to that person, or if a legal action arises because of conflicting claims to a Participant's or other person's benefits, the cost to the Trustee, the Company, an Affiliated Company or a Participating Employer of defending the action will be charged to the extent permitted by law to the sums, if any, which were involved in the action or were payable to the person concerned.

15.14 Evidence. Evidence required of anyone under the Plan may be by certificate, affidavit, document or other information which the person acting on it considers pertinent and reliable, and signed, made or presented by the proper party or parties.

IN WITNESS WHEREOF, this plan document has been executed by a duly authorized officer of the Company effective as of January 1, 2018.

OLIN CORPORATION

By____
Its____
Date ______________________________________

APPENDIX A-1

TOP HEAVY PROVISIONS

The following special provisions shall apply to determine if the Plan is a Top Heavy Plan in accordance with Code Section 416 and any special rules that will apply based on such status. In the event that the provisions contained in this Appendix A-1 are inconsistent with the terms contained in the remainder of the Plan, the provisions contained in this Appendix A-1 shall take precedence.

ARTICLE I

Definitions

Aggregation Group: All plans maintained by an Affiliated Company that are qualified under the Code; provided that each such plan satisfies at least one of the following requirements:

(a) one or more Key Employees are Participants;

(b) the plan enables any plan in which a Key Employee is a Participant to comply with the coverage and nondiscrimination requirements of Sections 401(a)(4) and 410 of the Code; or

(c) such plan has been designated as a part of the Aggregation Group, provided that the resulting Aggregation Group meets the coverage and nondiscrimination requirements of Sections 401(a)(4) and 410 of the Code.

Determination Date: With respect to any Plan Year, the last day of the preceding Plan Year.

Key Employee:
"Key Employee" shall mean any employee or former employee of the Company or of any Affiliated Company (and any beneficiary of such an employee) who at any time during the five (5) plan years ending on the determination date for the Plan Year in question (as defined under "Top-Heavy" in this Glossary) was:

(a) with respect to Plan Years prior to January 1,2002, an officer of the Company or of any Affiliated Company, provided, however, that for Plan Years beginning after December 31, 1983 only officers having an Annual Compensation greater than fifty percent (50%) of the dollar limitation in effect under Section 415(b)(1)(A) of the Code for the calendar year in which the Plan Year ends shall be included, and further provided that no more than fifty (50) persons (or, if lesser, the greater of three (3) persons or ten percent (10%) of the employees of the Company and the Affiliated Companies) shall be treated as officers;

(b) with respect to Plan Years prior to January 1,2002, one of the ten (10) employees having Annual Compensation of more than the dollar limitation in effect under Section 415(c)(1)(A) of the Code for the calendar year in which the Plan Year ends and owning (or considered as owning within the meaning of Section 318 of the Code) both more than a one-half percent (1/2%) interest and one of the ten largest percentage interests in the Company and Affiliated Companies (if two employees have the same interest in an employer, the employee having greater annual compensation shall be treated as having a larger interest);

(c) a person who, without application of the aggregation rules of subsections (b), (c) and (m) of Section 414(b) of the Code, owned (or was considered as owning within the meaning of Section 318 of the Code) more than five percent (5%) of the outstanding stock (or in the case of an unincorporated business, of the capital or profits interest) of the Company or Affiliated Company or stock possessing more than five percent (5%) of the total combined voting power of all of the stock of the Company or Affiliated Company; o

(d) a person who had Annual Compensation from the Company and/or Affiliated Companies of more than one hundred fifty thousand dollars ($150,000) and who, without application of the aggregation rules of subsections (b), (c) and (m) of Section 414(b) of the Code, owned (or was considered as owning within the meaning of Section 318 of the Code) more than one percent (1%) of the outstanding stock (or in the case of an unincorporated business, of the capital or profits interest) of the Company or Affiliated Company or stock possessing more than one percent (1%) of the total combined voting power of all of the stock of the Company or Affiliated Company.
For Plan Years commencing on or after January 1, 2002, "Key Employee" shall mean any Employee or former Employee of the Company or of any Affiliated Company (and any Beneficiary of such an Employee) who at any time during the Plan Year that includes the determination date (as defined under "Top-Heavy" in this Glossary) was an officer of the Company or any Affiliated Company having Annual Compensation greater than $13 0,000 (as adjusted under Section 416(i)(1) of the Code), a 5-percent owner of the Company, or a 1-percent owner of the Company having annual compensation of more than $150,000. For this purpose, annual compensation means compensation within the meaning of Section 415(c)(3) of the Code. The determination of who is a Key Employee shall be made in accordance with Section 416(i)(1) of the Code.

Top Heavy Plan: The Plan, if it is included in the Aggregation Group, and as of the Determination Date for such Plan Year, the sum of:

(a) the aggregate values of the Accounts for all Key Employees under the Plan; and

(b) the aggregate account values and the aggregate present values of accrued benefits (excluding amounts attributable to unrelated rollover contributions) for all Key Employees under all other plans in the Aggregation Group, exceeds 60 percent of all such aggregate values for all individuals under all plans in the Aggregation Group. In determining the value of any individual's account or the present value of his accrued benefits:

(i) Generally, any accrued benefit transferred or distributed in the five (5) year period ending on a plan's determination date: (except any such accrued benefit otherwise included in the present value of accrued benefits on the determination date) shall be added back and included in the plan's present value of accrued benefits as of the determination date; provided, however, that for Plan Years commencing on or after January 1,2002, in the case of a distribution made due to separation from service, death or disability only, this provision shall apply by substituting "one (1) year period" for "five (5) year period:";

(ii) the present value of his accrued benefit under a defined benefit plan shall be determined by using a five percent interest rate assumption and the mortality table used to determine a benefit that is the actuarial equivalent of another benefit under such plan; and

(iii) the accrued benefit of a non key employee under a defined benefit plan shall be (A) determined under the method, if any, that uniformly applies for accrual purposes under all plans maintained by any Affiliated Company, or (B) if there is no such method, as if such benefit accrued not more rapidly than the slowest accrual rate permitted under the fractional accrual rate of Section 411(b)(1)(C) of the Code. The value of the account balances or accrued benefit of Participants who have not performed or received credit for any services for any employer maintaining the plan (other than benefits under the plan) at any time during the five (5) year period ending on the plan's determination date shall be disregarded. For Plan Years beginning on or after January 1, 2002, the value of the account balances or accrued benefit of all Participants in a plan who have not performed or received credit for any services for any employer maintaining the plan (other than benefits under the Plan) at any time during the one (1) year period ending on the plan's determination date shall be disregarded.

Top Heavy Plan Year: A Plan Year in which the Plan is a Top Heavy Plan.

ARTICLE II

Vesting Requirements

In any Top Heavy Plan Year, the Account of each Participant shall be fully vested and nonforfeitable if he has credit for three Years of Service. In the event the Plan ceases to be a Top Heavy Plan for any Plan Year subsequent to a Top Heavy Plan Year, the Account of any individual that has become fully vested in accordance with the preceding sentence shall remain fully vested.

ARTICLE III

Minimum Allocation

Each Eligible Employee who on the last day of any Top Heavy Plan Year (a) is not a Key Employee and (b) does not participate in a defined benefit plan maintained by an Affiliated Company that provides that the minimum benefit requirements applicable to Top Heavy Plans will be satisfied in such other plan shall receive a minimum allocation of employer contributions pursuant to Sections 5.3 and 5.4 for such Plan Year equal to a percentage of his total pay as defined in Code Section 415(c)(3) (up to the maximum amount that may be taken into account, as adjusted from time to time by the Secretary of the Treasury) received in such Plan Year. Such percentage shall be equal to the lesser of three percent or the highest percentage at which employer contributions are allocated to the Account of any Key Employee for such Plan Year (when expressed as a percentage of such Key Employee's total pay, up to the maximum amount that may be taken into account, as adjusted).

Tax Deterred Contributions made on behalf of Non-Key Employees may not be taken into account in satisfying the top-heavy minimum contribution requirements. Prior to Plan Years commencing on and after January 1, 2002, if Matching Contributions are taken into account for such Employees for the purposes of satisfying the minimum top-heavy contribution requirement of this Section, they may not be taken into account for purposes of the average contribution percentage tests of Section 401(m), but instead must meet the nondiscrimination tests of Code Section 401(a)(4) without regard to Code Section 401(m). Effective for Plan Years commencing on or after January 1, 2002, Matching Contributions shall be taken into account for purposes of satisfying the minimum top-heavy contribution requirements of Section 416(c)(2) of the Code and the Plan. Matching Contributions that are used to satisfy the minimum top-heavy contribution requirements shall be treated as Matching Contributions for the purposes of the actual contribution percentage test and other requirements of Section 401(m) of the Code.

ARTICLE IV

Dual Plan Limit

For any Top Heavy Plan Year, the denominator of the defined contribution and defined benefit plan fractions described in Code Sections 415(e)(2)(B) and 3(B) shall be calculated by using a factor of 1.0 rather than 1.25.

APPENDIX A-2

INTERNAL REVENUE CODE REQUIREMENTS FOR CALCULATION AND PAYMENT OF BENEFITS

Section 1. General Rules

1.1 Effective Date. The provisions of this Exhibit will apply for purposes of determining required minimum distributions for calendar years beginning with the 2003 calendar year, as well as to be required minimum distributions made after the adoption of this restated Plan.

1.2 Coordination with Minimum Distribution Requirements Previously in Effect. If the total amount of 2002 required minimum distributions under the Plan made to the distributee prior to the effective date of this Exhibit equals or exceeds the required minimum distributions determined under this Exhibit, then no additional distributions will be required to be made for 2002 on or after such date to the distributee. If the total amount of 2002 required minimum distributions under the Plan made to the distributee prior to the effective date of this Exhibit is less than the amount determined under this Exhibit, then required minimum distributions for 2002 on and after such date will be determined so that the total amount of required minimum distributions for 2002 made to the distributee will be the amount determined under this Exhibit.

1.3 Precedence. The requirements of this Exhibit will take precedence over any inconsistent provisions of the Plan.

1.4 Requirements of Treasury Regulations Incorporated. All distributions required under this Exhibit will be determined and made in accordance with the Treasury regulations under Section 401 (a)(9) of the Code. With respect to distributions made for calendar years on or after January 1, 2003, distributions will be determined in accordance with the final and temporary regulations issued under Code Section 401(a)(9) on April 17, 2002, notwithstanding any provision of the Plan to the contrary.

1.5 TEFRA Section 242(b)(2) Elections. Notwithstanding the other provisions of this Exhibit, distributions may be made under a designation made before January 1, 1984, in accordance with Section 242(b)(2) of the Tax Equity and Fiscal Responsibility Act (TEFRA) and the provisions of the plan that relate to no later than the Section 242(b)(2) of TEFRA.

1.6 2009 RMD Relief under the Worker, Retiree and Employer Recovery Act of 2008. Notwithstanding any other provision of this Exhibit or the Plan, a Participant or Beneficiary who would have been required to receive required minimum distributions for 2009 but for the enactment of Section 401(a)(9)(H) of the Code ("2009 RMDs"), and who would have satisfied that requirement by receiving distributions that are equal to the 2009 RMDs (but not including any elected installment distribution which satisfies in part or all of your required minimum distributions for 2009), will not receive those 2009 RMD distributions for 2009. The preceding will be determined and administered in accordance with Code Section 401(a)(9)(H).

Section 2. Time and Manner of Distribution.

2.1 Required Beginning Date. The Participant's entire interest will be distributed, or begin to be distributed, at the Participant's Required Beginning Date.

2.2 Death of Participant Before Distributions Begin. If the Participant dies before distributions begin, the Participant's entire interest will be distributed, or begin to be distributed, no later than as follows:

(a) If the Participant's surviving spouse is the Participant's sole Designated Beneficiary, then, except as provided in Section 2.2(e) of this Exhibit, distributions to the surviving spouse will begin by December 31 of the calendar year immediately following the calendar year in which the Participant died, or by December 31 of the calendar year in which the Participant would have attained age 70 1/2, if later.

(b) If the Participant's surviving spouse is not the Participant's sole Designated Beneficiary, then, except as provided in Section 2.2(e) of this Exhibit, distributions to the Designated Beneficiary will begin by December 31 of the calendar year immediately following the calendar year in which the Participant died.

(c) If there is no Designated Beneficiary as of September 30 of the year following the year of the Participant's death, the Participant's entire interest will be distributed by December 31 of the calendar year containing the fifth anniversary of the Participant's death.

(d) If the Participant's surviving spouse is the Participant's sole Designated Beneficiary and the surviving spouse dies after the Participant but before distributions to the surviving spouse begin, this Section 2.2 will apply as if the surviving spouse were the Participant, but the time by which distributions must begin will be determined without regard to Section 2.2(a).

(e) Election to Apply 5-Year Rule to Distributions to Designated Beneficiaries. Notwithstanding 2.2(a) and (b) above, the Company elects to adopt the following optional provisions.

(1) distributions begin and there is a Designated Beneficiary, distribution to the Designated Beneficiary is not required to begin by the date specified in Subsection 2.2(a) or (b) above and Section 5.2B below, but, if such distribution does not begin by the date specified, the Participant's entire interest will be distributed to the Designated Beneficiary by December 31 of the calendar year containing the fifth anniversary of the Participant's death. If the Participant's surviving spouse is the Participant's sole Designated Beneficiary and the surviving spouse dies after the Participant but before distributions to either the Participant or the surviving spouse begin, this rule will apply as if the surviving spouse were the Participant.

(2) Election to Allow Participants or Beneficiaries to Elect 5-Year Rule. Participants or Beneficiaries may elect on an individual basis whether the 5-year rule or the Life Expectancy rule in Sections 2.2 and 4.2 of this Exhibit applies to distributions after the death of a Participant who has a Designated Beneficiary. The: election must be made no later than the earlier of September 30 of the calendar year in which distribution would be required to begin under Section 2.2, or by September 30 of the calendar year which contains the fifth anniversary of the Participant's (or, if applicable, surviving spouse's) death. If neither the Participant nor Beneficiary makes an election under this paragraph, distributions will be made in accordance with Subsection 2.2(e)(1).

For purposes of this Section 2.2 and Section 4, unless Section 2.2(d) applies, distributions are considered to begin on the Participant's Required Beginning Date. If Section 2.2(d) applies, distributions are considered to begin on the date distributions are required to be given to the surviving spouse under Section 2.2(a). If distributions under an annuity purchased from an insurance company irrevocably commence to the Participant before the Participant's Required Beginning Date (or to the Participant's surviving spouse before the date distributions are required to begin to the surviving spouse under Section 2.2(a)), the date distributions are considered to begin is the date distributions actually commence.

2.3 Forms of Distribution. Unless the Participant's interest is distributed in the form of an annuity purchased from an insurance company or in a single sum on or before the Required Beginning Date, as of the first Distribution Calendar Year distributions will be made in accordance with Sections 3 and 4 of this Exhibit. If the Participant's interest is distributed in the form of an annuity purchased from an insurance company, distributions thereunder will be made in accordance with the requirements of Section 401(a)(9) of the Code and the Treasury regulations.

Section 3. Required Minimum Distributions During Participant's Lifetime

3.1 Amount of Required Minimum Distribution For Each Distribution Calendar Year. During the Participant's lifetime, the minimum amount that will be distributed for each distribution calendar year is the lesser of:

(a) the quotient obtained by dividing the Participant's Account Balance by the distribution period in the Uniform Lifetime Table set forth in Section 1.401(a)(9)-9 of the Treasury regulations, using the Participant's age as of the Participant's birthday in the Distribution Calendar Year; or

(b) if the Participant's sole Designated Beneficiary for the Distribution Calendar Year is the Participant's spouse, the quotient obtained by dividing the Participant's Account Balance by the number in the Joint and Last Survivor Table set forth in Section 1.401(a)(9)-9 of the Treasury regulations, using the Participant's and spouse's attained ages as of the Participant's and spouse's birthdays in the Distribution Calendar Year.

3.2 Lifetime Required Minimum Distributions Continue Through Year of Participant's Death. Required minimum distributions will be determined under this Section 3 beginning with the first Distribution Calendar Year and up to and including the Distribution Calendar Year that includes the Participant's date of death.

Section 4. Required Minimum Distributions After Participant's Death

4.1 Death On or After Date Distributions Begin.

(a) Participant Survived by Designated Beneficiary. If the Participant dies on or after the date distributions begin and there is a Designated Beneficiary, the minimum amount that will be distributed for each distribution calendar year after the year of the Participant's death is the quotient obtained by dividing the Participant's account balance by the longer of the remaining life expectancy of the Participant or the remaining life expectancy of the Participant's Designated Beneficiary, determined as follows:

(1) The Participant's remaining life expectancy is calculated using the age of the Participant in the year of death reduced by one for each subsequent year.

(2) If the Participant's surviving spouse is the Participant's sole Designated Beneficiary, the remaining life expectancy of the surviving spouse is calculated for each distribution calendar year after the year of the Participant's death using the surviving spouse's age as of the spouse's birthday in that year. For distribution calendar years after the year of the surviving spouse's death, the remaining life expectancy of the surviving spouse is calculated using the age of the surviving spouse as of the spouse's birthday in the calendar year of the spouse's death, reduced by one for each subsequent calendar year.

(3) If the Participant's surviving spouse is not the Participant's sole Designated Beneficiary, the Designated Beneficiary's remaining life expectancy is calculated using the age of the beneficiary in the year following the year of the Participant's death, reduced by one for each subsequent year.

(b) No Designated Beneficiary. If the Participant dies on or after the date distributions begin and there is no Designated Beneficiary as of September 30 of the year after the year of the Participant's death, the minimum amount that will be distributed for each Distribution Calendar Year after the year of the Participant's death is the quotient obtained by dividing the Participant's Account Balance by the Participant's remaining life expectancy calculated using the age of the Participant in the year of death, reduced by one for each subsequent year.

4.2 Death Before Date Distributions Begin.

(a) Participant Survived by Designated Beneficiary. If the Participant dies before the date distributions begin and there is a Designated Beneficiary, the minimum amount that will be distributed for each distribution calendar year after the year of the Participant's death is the quotient obtained by dividing the Participant's account balance by the remaining life expectancy of the Participant's Designated Beneficiary, determined as provided in Section 4.1.

(b) No Designated Beneficiary. If the Participant dies before the date distributions begin and there is no Designated Beneficiary as of September 30 of the year following the year of the Participant's death, distribution of the Participant's entire interest will be completed by December 31 of the calendar year containing the fifth anniversary of the Participant's death.

(c) Death of Surviving Spouse Before Distributions to Surviving Spouse Are Required to Begin. If the Participant dies before the date distributions begin, the Participant's surviving spouse is the Participant's sole Designated Beneficiary, and the surviving spouse dies before distributions are required to begin to the surviving spouse under Section 2.2(a), this Section 4.2 will apply as if the surviving spouse were the Participant.

Section 5. Definitions The following definitions shall supersede any conflicting definitions in the Glossary of the Plan.

5.1 Designated Beneficiary. The individual who is designated as the Beneficiary under Section 6.4 of the Plan and is the Designated Beneficiary under Section 401(a)(9) of the Code and Section 1.401 (a)(9)-1, Q&A-4, of the Treasury regulations.

5.2 Distribution Calendar Year. A calendar year for which a minimum distribution is required. For distributions beginning before the Participant's death, the first distribution calendar year is the calendar year immediately preceding the calendar year which contains the Participant's Required Beginning Date. For distributions beginning after the Participant's death, the first Distribution Calendar Year is the calendar year in which distributions are required to begin under Section 2.2. The required minimum distribution for the Participant's first Distribution Calendar Year will be made on or before the Participant's Required Beginning Date. The required minimum distribution for other Distribution Calendar Years, including the required minimum distribution for the Distribution Calendar Year in which the Participant's Required Beginning Date occurs, will be made on or before December 31 of that distribution calendar year.

5.3 Life expectancy. Life expectancy as computed by use of the Single Life Table in Section 1.401(a)(9)-9 of the Treasury regulations.

5.4 Participant's Account Balance. The account balance as of the last valuation date in the calendar year immediately preceding the distribution calendar year (valuation calendar year) increased by the amount of any contributions made and allocated or forfeitures allocated to the account balance as of dates in the valuation calendar year after the valuation date and decreased by distributions made in the valuation calendar year after the valuation date. The account balance for the valuation calendar year includes any amounts rolled over or transferred to the plan either in the valuation calendar year or in the distribution calendar year if distributed or transferred in the valuation calendar year.

5.5 Required Beginning Date. The date specified in the definition of Required Beginning Date in the Glossary of the Plan.

Exhibit 21

SUBSIDIARIES OF OLIN CORPORATION[1]

(As of December 31, 2023)

Company	Jurisdiction
Blue Cube Holding LLC	DE
Blue Cube Intermediate Holding 2 LLC	DE
Blue Cube International Holdings LLC	DE
Blue Cube IP LLC	DE
Blue Cube Operations LLC	DE
Blue Cube Spinco LLC	DE
Blue Water Alliance JV, LLC	DE
Henderson Groundwater LLC	NV
HPCM LLC	DE
Hunt Trading Co.	MO
Imperial West Chemical Co.	NV
K. A. Steel Chemicals Inc.	DE
K. A. Steel International Inc.	DE
KAS Muscatine LLC	IA
KNA California, Inc. *(see footnote 2)*	DE
KWT, Inc.	DE
Monarch Brass & Copper Corp.	NY
Monarch Brass & Copper of New England Corp.	RI
New Haven Copper Company	CT
Niloco BCN Holdings, LLC	DE
Niloco Global Holdings LLC	DE
Niloco Hydrogen Holdings LLC	DE
Olin Benefits Management, Inc.	CA
Olin Business Holdings	DE
Olin Chlor Alkali Logistics Inc.	DE
Olin Chlorine 7, LLC	DE
Olin Engineered Systems, Inc.	DE
Olin Far East, Limited	DE
Olin Finance Company, LLC	DE
Olin Financial Services Inc.	DE
Olin Funding Company LLC	DE
Olin North American Holdings, Inc.	DE
Olin Russellville Cell Technologies LLC	DE
Olin Winchester, LLC	DE
Pioneer Americas LLC	DE
Pioneer Companies, LLC	DE
Pioneer (East), Inc.	DE
Pioneer Licensing, Inc.	DE
Pioneer Transportation LLC	DE
Pioneer Water Technologies, Inc.	DE
Ravenna Arsenal, Inc.	OH
TriOlin, LLC	DE
Waterbury Rolling Mills, Inc.	CT
Winchester Ammunition, Inc.	DE
Winchester Defense, LLC	DE
INTERNATIONAL	
3229897 Nova Scotia Co.	Nova Scotia, Canada
BC Switzerland GmbH	Switzerland
Blue Cube Netherlands Holding C.V.	Netherlands

Blue Cube Australia Pty Ltd	Australia
Blue Cube Brasil Comércio de Produtos Químicos Ltda. *(see footnote 3 for Subordinates)*	Brazil
Blue Cube Chemicals Hong Kong Limited	Hong Kong
Blue Cube Chemicals India Private Limited	India
Blue Cube Chemicals Italy S.r.l.	Italy
Blue Cube Chemical Korea Ltd.	Korea
Blue Cube Chemicals Singapore Pte. Ltd.	Singapore
Blue Cube Chemicals Singapore Pte. Ltd. Taiwan Branch	Taiwan
Blue Cube Chemicals South Africa Pty Ltd	South Africa
Blue Cube Chemicals (UK) Limited	United Kingdom
Blue Cube Chemicals (Zhangjiagang) Co., Ltd.	China
Blue Cube Chemicals (Zhangjiagang) Co., Ltd. Shanghai Branch	China
Blue Cube Denmark ApS	Denmark
Blue Cube Germany Assets GmbH & Co. KG	Germany
Blue Cube Germany Assets Management GmbH	Germany
Blue Cube Japan LLC	Japan
Blue Cube Mexico, S. de R.L. de C.V.	Mexico
Blue Cube Netherlands B.V.	Netherlands
Blue Cube Rasha OOO	Russia
Blue Cube (Thailand) Company Limited	Thailand
Blue Cube (Thailand) Company Limited Hong Kong Branch	Hong Kong
Blue Cube Turkey Kimyasal Ürünler Limited Şirketi	Turkey
Blue Water Alliance JV LLP	United Kingdom
BWA Japan Godo Kaisha	Japan
CANSO Chemicals Limited	Nova Scotia, Canada
Nedastra Holding B.V.	Netherlands
Niloco Cyprus Limited	Cyprus
Olin Canada ULC	Nova Scotia, Canada
Olin Cyprus Holdings Ltd.	Cyprus
Olin Germany AP LTP GmbH	Germany
Olin Germany Upstream GmbH & Co. KG	Germany
Olin Hunt Specialty Products S.r.l.	Italy
Olin International Holdings Limited	United Kingdom
Winchester Australia Limited	Australia

Footnotes:

1 Omitted from the following list are the names of certain subsidiaries which, if considered in the aggregate as a single subsidiary, would not constitute a significant subsidiary

2 In California only this entity conducts business under the name of Kemwater KNA California, Inc.

3 Subordinates of Blue Cube Brasil Comércio de Produtos Químicos Ltda.:
- Sâo Paulo Branch of Blue Cube Brasil Comércio de Produtos Químicos Ltda.
- Bahia Branch of Blue Cube Brasil Comércio de Produtos Químicos Ltda. (Caustic Soda)
- Paraná Branch of Blue Cube Brasil Comércio de Produtos Químicos Ltda. (Caustic Soda)

Exhibit 23

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the registration statements (No. 333-270458) on Form S-3 and Nos. 333-18619, 333-39305, 333-97759, 333-110135, 333-110136, 333-124483, 333-133731, 333-148918, 333-158799, 333-166288, 333-176432, 333-195500, 333-209534, 333-211434, 333-224569 and 333-255718 on Form S-8 of our report dated February 22, 2024, with respect to the consolidated financial statements of Olin Corporation and the effectiveness of internal control over financial reporting.

/s/ KPMG LLP

St. Louis, Missouri
February 22, 2024

Exhibit 31.1

CERTIFICATIONS

I, Scott Sutton, certify that:

1. I have reviewed this annual report on Form 10-K of Olin Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 22, 2024

/s/ Scott Sutton
Scott Sutton
President and Chief Executive Officer

Exhibit 31.2

CERTIFICATIONS

I, Todd A. Slater, certify that:

1. I have reviewed this annual report on Form 10-K of Olin Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 22, 2024

/s/ Todd A. Slater
Todd A. Slater
Senior Vice President and Chief Financial Officer

Exhibit 32

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED
PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Olin Corporation (the "Company") on Form 10-K for the period ended December 31, 2023 as filed with the Securities and Exchange Commission (the "Report"), I, Scott Sutton, President and Chief Executive Officer and I, Todd A. Slater, Senior Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to our knowledge: (1) the Report fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934; and (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its Staff upon request.

/s/ Scott Sutton
Scott Sutton
President and Chief Executive Officer

Dated: February 22, 2024

/s/ Todd A. Slater
Todd A. Slater
Senior Vice President and Chief Financial Officer

Dated: February 22, 2024

Exhibit 97

OLIN CORPORATION
Executive Officer Clawback Policy
Amended and Restated as of December 7, 2023

The Olin Corporation Executive Officer Clawback Policy (***Policy***") applies only to Executive Officers (as defined below) of Olin Corporation, its subsidiaries and affiliates ("***Olin***"). This Policy is in addition to, and shall not supersede and replace, any other clawback policies of Olin, except that any other clawback policy of Olin shall not apply to Executive Officers. To the extent any inconsistencies exist between this Policy and any other clawback policy of Olin with respect to Executive Officers, the terms of this Policy will control.

This Policy was originally adopted on October 26, 2023 and became effective as of October 2, 2023, the Effective Date of Section 303A.14 of the New York Stock Exchange listing standards (the "**Effective Date**"), and is amended and restated as of December 7, 2023 to include additional clawback features beyond those required under applicable New York Stock Exchange listing standards.

Definitions

For purposes of this Policy, the following definitions will apply:

"Board" means Olin's Board of Directors.

"Committee" means the Olin Compensation Committee of the Board of Directors.

"***Excess Compensation***" means any amount of Incentive-Based Compensation Received by an Executive Officer that exceeds the amount of Incentive-Based Compensation that otherwise would have been received had it been determined based on the restated financial information or properly calculated financial measure. Excess Compensation shall be calculated on a pre-tax basis.

"***Executive Officer***" means Olin's officers for purposes of Section 16 under the Securities Exchange Act of 1934, as amended (the "***Exchange Act***") during any portion of the performance period of the Incentive-Based Compensation.

"***Incentive Award***" means any award under Olin's Short-Term Incentive Plan, or other award that (i) vests as the result of (or the payout or settlement amount is determined based upon) achievement of quantitative performance targets and is granted under any of Olin's Long Term Incentive Plans, regardless of whether such award is denominated or payable in cash or securities, and (ii) that vests as a result of, or is determined based upon, the quantitative performance of Olin or any of its subsidiaries or affiliates during any portion of the period to which the restatement relates or which reflects a significant increase in value. Incentive Award includes performance shares but does not include any stock options, restricted shares or restricted stock units that are subject to time-based vesting criteria only.

"***Incentive-Based Compensation***" means any non-equity incentive plan awards, bonuses paid from a bonus pool, cash awards, equity or equity-based awards (including any award under the STIP), or proceeds received upon sale of shares acquired through an incentive plan; provided that, such compensation is granted, earned, and/or vested based wholly or in part on the attainment of a financial performance measure, as determined in accordance with Section 10D of the Exchange Act and Section 303A.14 of th New York Stock Exchange listing standards (the "***Clawback Rules***"). Incentive-Based Compensation does not include any salaries, discretionary bonuses non-equity incentive plan awards earned upon satisfying a strategic measure or operational measure (e.g., completion of a project), or equity-based awards that are not contingent on achieving any financial reporting measure (e.g., time vested stock options, restricted stock or restricted stock units).

"***Lookback Period***" means the three (3) completed fiscal years immediately preceding the earlier of the date on which (a) the Board or appropriate committee concludes or reasonably should have concluded that an accounting restatement is required or (b) a regulator directs a restatement.

"***Received***" means any Incentive-Based Compensation for which the applicable financial reporting measure upon which the payment is based is attained during the fiscal year, even if payment or grant of the Incentive-Based Compensation occurs after the end of such period.

Clawback Due to Accounting Restatement

In the event Olin is required to prepare an accounting restatement of its financial statements due to Olin's material noncompliance with any financia reporting requirement under the securities laws, the Committee or the Board shall require reimbursement or forfeiture ("***clawback***") of any Excess Compensation Received on or after the Effective Date by any Executive Officer (current or former) during the applicable Look-Back Period, regardless o whether the Executive Officer engaged in misconduct or was otherwise directly or indirectly responsible, in whole or in part, for the accounting restatement. Covered accounting restatements include those that either (a) correct an error in a previously issued financial statement that is material to such previously issued financial statement or (b) correct an error that is not material to a previously issued financial statement but would result in a material misstatement if left uncorrected in a current report or the error correction was not recognized in the current period.

In the event the Committee or the Board cannot determine the Excess Compensation from the information in the accounting restatement or from th recalculated financial measure, then it will make its determination based on a reasonable estimate of the effect of the accounting restatement or recalculation. Such determination will be final and binding.

Clawback Due to Misconduct

In addition to the clawback of Excess Compensation above, in the event the Committee or the Board reasonably determines that an Executive Office has engaged in grossly negligent or intentional misconduct that the Committee or the Board reasonably determines (the date of such determination, the "Determination Date") was a significant contributing factor to (i) an accounting restatement of Olin's financial statements or (ii) any significant increase in the value of such Executive Officer's Incentive Award, the Committee or the Board may (a) recover all income received by the Executive Officer in respect of an Incentive Award during the fiscal year in which the Determination Date occurs or the three (3) completed fiscal years immediately preceding the Determination Date, and/or (b) cancel any Incentive Award granted to the Executive Officer during the fiscal year in which the Determination Date occurs or the three (3) completed fiscal years immediately preceding the Determination Date.

Clawback Method

The Committee or the Board may determine, in its sole discretion, the method for the clawback of any amounts due under this Policy, which may include, without limitation direct payment from the Executive Officer, recovery over time, the forfeiture or reduction of future pay or awards, or any other method that will provide for recovery within a reasonable manner and without undue delay. Olin may enter into deferred payment plans with Executive Officers to effectuate clawback to avoid unreasonable economic hardship. Any amounts due under this Policy may be deducted as an offset from amounts due to the Executive Officer from Olin, except to the extent such set-off is prohibited by law or would violate Code Section 409A and the regulations thereunder.

The Committee or the Board thereof shall not be required to seek to clawback amounts due under this Policy if such clawback would be impracticable, violate home country laws, and/or involve tax qualified retirement plans, as determined by the Committee or the Board in accordance with the Clawback Rules. Any determination that clawback is not required shall be documented by the Committee or the Board.

General

Olin shall not indemnify any Executive Officer against the loss of any covered compensation as a result of the application of this Policy.

This Policy is in addition to (and not in lieu of) any right of repayment, forfeiture or right of offset against any employees that is required pursuant to any statutory repayment requirement (regardless of whether implemented at any time prior to or following the adoption or amendment of this Policy), including Section 304 of the Sarbanes-Oxley Act of 2002. Any amounts paid to Olin pursuant to Section 304 of the Sarbanes-Oxley Act of 2002 shall be considered i determining any amounts recovered under this Policy.

The terms of this Policy shall be binding and enforceable against all Executive Officers subject to this Policy and their beneficiaries, heirs, executors, o other legal representatives. If any provision of this Policy or the application of such provision to any Executive Officer shall be adjudicated to be invalid, illega or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Policy, and the invalid, illegal or unenforceable provisions shall be deemed amended to the minimum extent necessary to render any such provision (or the application of such provision) valid, legal or enforceable.

Each Executive Officer shall promptly sign and return to Olin following the later of (i) the Effective Date or (ii) the date the individual becomes a Executive Officer, the Acknowledgement Form attached hereto as Exhibit A, pursuant to which the Executive Officer agrees to be bound by, and to comply with, the terms and conditions of this Policy.

To the extent the Clawback Rules require recovery of Incentive-Based Compensation in additional circumstances beyond those specified above nothing in this Policy shall be deemed to limit or restrict the right or obligation of Olin to recover Incentive-Based Compensation to the fullest extent required by the Clawback Rules.

Exhibit A

Clawback Policy

Acknowledgement and Agreement Form

By signing below, I acknowledge and agree that I have received, reviewed and had the opportunity to ask questions regarding the Policy.

Furthermore, I acknowledge and agree that I am fully bound by, and subject to, all of the terms and conditions of the Policy, as may be amended, restated, supplemented or otherwise modified from time to time. I acknowledge and agree that my execution of this Acknowledgement and Agreement Form is in consideration of, and is a condition to, my receipt of future awards from Olin, though nothing in this Acknowledgement and Agreement Form shall obligate Olin to make any particular award. In the event of any inconsistency between the Policy and the terms of any employment agreement to which I am a party, or to the terms of any compensation plan, program, agreement or arrangement under which any Incentive-Based Compensation or Incentive Award covered by the Policy is payable, the terms of this Policy shall govern and shall be deemed incorporated into all such plans, programs, agreements (including any employment agreements) or arrangements, including and without limitation, those granted or awarded prior to the date hereof and those granted or awarded in the future.

In the event any Incentive-Based Compensation or Incentive Award is subject to recoupment or recovery under the terms of the Policy, I will promptly take any action necessary to effectuate the recoupment or recovery of such compensation by Olin.

EXECUTIVE OFFICER

____
Signature

____
Print Name

____
Date