Rockwood Holdings, Inc.
Form 10-K
March 04, 2014

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended December 31, 2013

Or

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

Commission file number 001-32609

Rockwood Holdings, Inc.

(Exact name of Registrant as specified in its charter)

Delaware	**52-2277366**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

100 Overlook Center, Princeton, New Jersey 08540

(Address of principal executive offices) (Zip Code)

(609) 514-0300

(Registrant s telephone number, including area code)

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

Title of each class	**Name of each exchange on which registered**
Common Stock, par value $0.01 per share	New York Stock Exchange

Securities registered pursuant to section 12(g) of the Act:

None

(Title of class)

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 o

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 o 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 o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes x No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of Registrant s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. o

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer, and smaller reporting company in Rule 12b-2 of the Exchange Act.

Large accelerated filer x Accelerated filer o

Non-accelerated filer o (Do not check if a smaller reporting company) | Smaller reporting company o

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No x

The aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold as of June 30, 2013 was $4,131,358,194.

As of February 28, 2014, there were 74,066,123 outstanding shares of common stock, par value $0.01 per share, of the Registrant.

DOCUMENTS INCORPORATED BY REFERENCE

The definitive proxy statement relating to the registrant s Annual Meeting of Stockholders, to be held on May 9, 2014, is incorporated by reference in Part III to the extent described therein.

TABLE OF CONTENTS

FORM 10-K

PART I

Forward-Looking Statements

This document contains forward-looking statements. Forward-looking statements within the context of the Private Securities Litigation Reform Act of 1995 are not statements of historical fact and may involve a number of risks and uncertainties. Forward-looking statements give our current expectations or forecasts of future events and estimates of amounts not yet determinable. We have used the words anticipate, estimate, expect, project, intend, plan, believe, predict, could, may and other words and terms of similar meaning, including references to ass this report to identify forward-looking statements. These forward-looking statements are made based on expectations and beliefs concerning future events affecting us and are subject to uncertainties and factors relating to our operations and business environment, all of which are difficult to predict and many of which are beyond our control, that could cause our actual results to differ materially from those expressed in or implied by these forward-looking statements. In particular, these factors include, among other things:

- our business strategy;
- our ability to complete our previously announced divestiture;
- our uses of the cash and cash equivalents from the completed divestitures or expected to be completed divestiture;
- the prospects of, and our outlook for, our businesses;
- changes in the general economic conditions in Europe and North America and in other locations in which we currently do business;
- competitive pricing or product development activities affecting demand for our products;
- technological changes affecting production of our materials;
- fluctuations in interest rates, exchange rates and currency values;
- availability and pricing of raw materials;
- governmental and environmental regulations and changes in those regulations;
- fluctuations in energy prices;
- changes in the end-use markets in which our products are sold;
- hazards associated with chemicals manufacturing;
- our ability to access capital markets;
- our high level of indebtedness;
- risks associated with negotiating, consummating and integrating acquisitions;

- risks associated with competition and the introduction of new competing products, especially from the Asia-Pacific region;
- risks associated with international sales and operations; and
- risks associated with information security.

You should keep in mind that any forward-looking statements made by us in this document or elsewhere speak only as of the date on which we make them. New risks and uncertainties come up from time to time, and it is impossible for us to predict these events or how they may affect us. We disclaim any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Item 1. Business.

Unless we indicate otherwise or the context otherwise requires, any references to we, our, us, the Company or Rockwood refer to Rockwood Holdings, Inc. and its consolidated subsidiaries. Rockwood Holdings, Inc. is a Delaware corporation incorporated in September 2000.

Unless otherwise noted, all balance sheet related items as of December 31, 2013 which are denominated in Euros are converted at the December 31, 2013 exchange rate of 1.00 = $1.3743. For the years ended December 31, 2013, 2012 and 2011, the average rate of exchange of the Euro to the U.S. dollar is $1.3285, $1.2864 and $1.3923, respectively.

General

Rockwood is a leading global developer, manufacturer and marketer of technologically advanced and high value-added specialty chemicals used for industrial and commercial purposes. Rockwood is a leading integrated and low cost global producer of lithium and lithium compounds for use in things such as lithium ion batteries for hybrid and electric vehicles, electronic devices, as well as pharmaceutical applications, among other things, and is also the second largest global producer of surface treatment products and services for metal processing, including for use in the automotive and aerospace industries.

During 2013, we sold our Advanced Ceramics segment and Clay-based Additives business, and entered into a definitive agreement to sell our Titanium Dioxide Pigments, Color Pigments and Services, Timber Treatment Chemicals, Rubber/Thermoplastics Compounding and Water Chemistry businesses (the TiO2 Pigments and Other Businesses). The sale of the TiO2 Pigments and Other Businesses is expected to close during the first half of 2014. There can be no assurance that this transaction will be completed in a timely manner, if at all. As of December 31, 2013, all three of these transactions met the criteria for being reported as discontinued operations, and thus, our consolidated financial statements have been reclassified to reflect discontinued operations for these transactions for all periods presented. As a result of these completed and expected divestitures, we operate in two reportable segments: (1) Lithium and (2) Surface Treatment. See Item 8. Financial Statements and Supplementary Data - Note 2, Discontinued Operations, in the accompanying consolidated financial statements for further details of these transactions.

Our products consist primarily of inorganic chemicals and solutions. They are often customized to meet the complex needs of our customers and to enhance the value of their end products by improving performance, providing essential product attributes, lowering costs and/or making them more environmentally friendly. We generally compete in niche markets in a wide range of end-use markets, including metal treatment and general industry, automotive, life sciences (pharmaceutical markets), chemicals and plastics, aerospace, and electronics and telecommunications.

We have a number of growth prospects, such as lithium battery applications and pharmaceutical applications in our Lithium business and aerospace products, new technologies in general industry and emerging markets in our Surface Treatment business. Our high margins, diverse customer and end-use market base, capital discipline and ongoing productivity improvements provide us with a platform to capitalize on market growth opportunities.

We operate globally, manufacturing our products for our continuing operations in 33 facilities in 17 countries and selling our products and providing our services to more than 50,000 customers, including some of the world s preeminent companies. For a geographic description of the origin of our net sales and location of our long-lived assets, see Item 8. Financial Statements and Supplementary Data - Note 3, Segment Information, in the accompanying consolidated financial statements.

We believe our products are generally critical to our customers products performance, but account for a small percentage of the total cost of their products.

We operate our businesses that are our continuing operations through the following two reportable business segments: (1) Lithium and (2) Surface Treatment. The following table sets forth for each segment net sales and the percentage of our net sales for the year ended December 31, 2013, as well as our principal products and our principal end-use markets. For financial information about each segment, see Item 8. Financial Statements and Supplementary Data - Note 3, Segment Information.

	2013 Net Sales			
Segment	**$ in Millions**	**% of Total**	**Principal Products**	**Principal End-Use Markets**
Lithium	$ 479.4	35%	• Lithium compounds and chemicals	• Life sciences (pharmaceutical synthesis and polymers) • Polymerization initiators for elastomers

					• Batteries for hybrid and electric vehicles and electronic devices
Surface Treatment	$	770.2	56%	• Metal surface treatment chemicals including corrosion protection/ prevention oils • Maintenance chemicals	• Automotive pre-coating metal treatment and car body pre-treatment • Steel and metal working • Aircraft industry
Corporate and other (a)	$	128.2	9%	• Natural and synthetic metal sulfides • Wafer recycling and repair	• Disc brakes • Semiconductors manufacturing
	$	1,377.8	100%		

(a) Primarily represents our metal sulfides business, as well as our European wafer reclaim business.

Diverse Customer and End-Use Market Base. We have more than 50,000 customers worldwide that cover a wide variety of industries and geographic areas. We operate a geographically diverse business, with 53% of our net sales in 2013 generated from shipments to customers in Europe, 21% to North America (predominantly the United States), 16% to Asia and 10% to the rest of the world. No customer accounted for more than 3% of such net sales, and our top ten customers represented only approximately 15% of such net sales. Our largest end-use market, metal treatment and general industry, which includes a broad range of industrial end-markets, including household appliances, manufacturing, can producers, heating, ventilation, aluminum finishing and other diverse end-markets, represented approximately 30% of such net sales. The following chart provides a breakdown of our 2013 net sales by end-use markets:

Reportable Segments - Continuing Operations

The following describes each of our reportable segments, as well as the principal products or principal divisions within each segment.

Lithium (35% of 2013 net sales)

Our Lithium segment operates under the *Rockwood Lithium* brand name and develops lithium chemicals for a wide range of industries and end markets. We believe that our Lithium business is the leading global producer of lithium products, specialty lithium compounds and chemicals and advanced metal-based specialty chemicals. Our Lithium segment generated net sales of $479.4 million, $474.4 million and $456.5 million for the years ended December 31, 2013, 2012 and 2011, respectively. See Item 8. Financial Statements and Supplementary Data - Note 3, Segment Information, for additional financial information regarding our Lithium segment.

Our Lithium segment develops and manufactures a broad range of basic lithium compounds, including lithium carbonate, lithium hydroxide, lithium chloride, and value-added lithium specialties and reagents, including butyllithium and lithium aluminum hydride. Lithium is a key component in products and processes used in a variety of applications and industries, which range from lithium batteries, high performance greases, thermoplastic elastomers for car tires, rubber soles and plastic bottles to intermediates in the pharmaceutical industry. We operate our lithium business along the following five business divisions reflecting its core end-markets: (1) Lithium Salts; (2) Special Salts; (3) Butyllithium/Lithium Metal; (4) Battery Products and (5) Lithium Specialties.

In addition to developing and supplying lithium compounds, we provide technical service, including the handling and use of reactive lithium products. We also offer our customers recycling services for lithium containing by-products resulting from synthesis with organolithium products, lithium metal and other reagents. We plan to continue to focus on the development of new products and applications. Currently, we are in the process of developing lithium compounds for several near to medium-term, new and potentially high growth products for various applications, such as pharmaceuticals and batteries for electric vehicles.

Our Lithium segment also develops and manufactures advanced metal-based specialty chemicals under its Special Metals business division. Special Metals develops and manufactures cesium products for the chemical and pharmaceutical industries and zirconium, barium and titanium products for various pyrotechnical applications, including airbag igniters. In order to further strengthen our competitive position in the metal-based specialty chemicals market, we are focused on the production of new variations of cesium products in the chemicals industry, the pharmaceuticals industry, the defense industry and for use in catalytic applications. We also continuously monitor our customers industries for potential new applications for our products. In addition, we expect to expand our business by penetrating growth markets such as India and China.

Currently, our Lithium segment obtains lithium brine which we use to produce our lithium products through evaporation in the Salar de Atacama, Chile and Silver Peak, Nevada. In the future, as described below, we expect that our Lithium segment will also obtain lithium from a lithium mine in Australia.

Description of the Salar de Atacama, Chile and Silver Peak, Nevada

Our mineral rights with respect to the Salar de Atacama in Chile consist exclusively of our right to extract lithium brine pursuant to a long-term contract with the Chilean government, originally entered into in January 1975 by one of our predecessors and subsequently amended and restated. Our contract with the Chilean government will remain in effect until the date on which we have produced and sold 200,000 metric tons of lithium in any of its forms from the Salar de Atacama. As of December 31, 2013, the remaining amount of lithium we were permitted to sell under the contract equaled approximately 125,000 metric tons of total lithium. The size of the area at the Salar de Atacama covered by our claims is approximately 16,700 hectares. We currently own the land on which we operate our extracting facility at the Salar de Atacama and our processing facility in La Negra. However, the ownership of the land at the Salar de Atacama will revert to the Chilean government once we have sold all amounts of lithium remaining under our contract with the Chilean government (the ownership of the land and fixed assets in La Negra will remain unchanged). In connection with our operations at the Salar de Atacama, we have been granted a permit to pump specified amounts of water. We have also been granted a permit to use the public roads to access the Salar de Atacama and, together with other companies that operate in the region, contribute financially to maintain such roads.

The Salar de Atacama is a salt flat, the largest in Chile, located in the Atacama desert in northern Chile, which is the driest place on the planet and thus has an extremely high annual rate of evaporation and extremely low annual rainfall. Our extraction through evaporation process works as follows: snow in the Andes Mountains melts and flows underground into underground pools of water containing brine, which generally have high concentrations of lithium. We then pump the water containing brine above ground through a series of pumps and wells into a network of large evaporation ponds. Over the course of approximately eighteen months, the desert sun evaporates the water causing other salts to precipitate, leaving behind concentrated lithium brine. If weather conditions are not favorable, the evaporation process may be prolonged. After we obtain the lithium brine, we process the lithium brine extracted from the Salar de Atacama into lithium carbonate and lithium chloride at a plant in nearby La Negra, Chile.

Our mineral rights in Silver Peak, Nevada consist exclusively of our right to extract lithium brine pursuant to a settlement agreement with the U.S. government, originally entered into in June 1991 by one of our predecessors. Pursuant to this agreement, we have rights to all of the lithium that we can remove economically. We or our predecessors have been operating at the Silver Peak site since 1966. Our Silver Peak site covers a surface of approximately 15,301 acres, 10,826 acres of which we own through a subsidiary. The remaining acres are owned by the U.S. government from whom we lease the land pursuant to a lease agreement which is renewed annually. In connection with our operations at Silver Peak, we have been granted by the U.S. government rights to pump water in the Clayton Wash Basin area.

We extract lithium brine through the same evaporation process we use in the Salar de Atacama and the evaporation process at Silver Peak takes substantially the same time as at the Salar de Atacama. We process the lithium brine extracted from our Silver Peak site into lithium carbonate at our plant in Silver Peak. However, our extraction process at Silver Peak involves different considerations from our operations in Chile because there is more variability in conditions, and future extraction depends upon factors such as weather, flow rate of water, hydrology of the Clayton Basin, lithium concentrations in the water and recoverable yield.

Lithium Reserves at the Salar de Atacama, Chile and Silver Peak, Nevada

We do not have an estimate of the proven and/or probable lithium reserves at the Salar de Atacama in Chile. Instead, we rely on the reserve information published by the U.S. Geological Survey, which is approximately 7.5 million metric tons of lithium for all of Chile. Based on this survey, given that the only running lithium operations in Chile are at the Salar de Atacama, we believe the reserve number reflects the total estimated lithium reserve in the Salar de Atacama. Furthermore, based on the area of our claims pursuant to our lithium brine contract with the Chilean government, we estimate the reserves covered by our claims at the Salar de Atacama would be approximately 1.2 million metric tons of lithium. This reserve number is significantly in excess of approximately 125,000 metric tons of lithium that we are permitted to extract at the Salar de Atacama pursuant to our contract.

We do not have an estimate of the proven and/or probable lithium reserves at our site in Silver Peak, Nevada that complies with Industry Guide 7. The U.S. Geological Survey has published reserve information which shows approximately 38,000 metric tons of lithium for all of the United States. Given that the only running lithium operations in the United States are at Silver Peak, Nevada, we believe the reserve number reflects the total estimated lithium reserve at Silver Peak. Our own reserve estimate at Silver Peak is substantially similar to the reserve number published by the U.S. Geological Survey (approximately 35,000 metric tons). Our own reserve estimate is determined based principally on a depletion study conducted by a third party in 2011. Our own reserve estimate is based upon assumptions about the weather, flow rate of water, hydrology of the Clayton Basin, lithium concentrations in the water and recoverable yield as well as the price of lithium, which impacts whether it is economical to recover the lithium based upon the above factors. There can be no assurance that we will be able to extract all of the estimated reserves.

Lithium Carbonate Production Capacity at the Salar de Atacama, Chile and Silver Peak, Nevada

The lithium industry typically measures lithium and lithium compounds in terms of lithium carbonate or lithium carbonate equivalents and as a result, we believe lithium carbonate is the most meaningful measure to reflect our production and capacity. In addition, lithium carbonate is the basis for all further later stage processing. During the fiscal year ended December 31, 2013, we produced approximately 23,800 metric tons of lithium carbonate at our La Negra facility. Based on our 2013 production levels, we believe that the amount of lithium brine we extract from the Salar de Atacama pursuant to our contract with the Chilean government could support the current levels of lithium production for approximately 25 years. Assuming certain operating conditions are satisfied, our annual lithium carbonate production capacity is estimated to be approximately 27,000 metric tons at our La Negra facility.

During the fiscal year ended December 31, 2013, we produced approximately 4,600 metric tons of lithium carbonate at our Silver Peak facility. Based on our 2013 production levels, we believe that the amount of lithium brine we can economically extract from our Silver Peak, Nevada site pursuant to our contract with the U.S. government could support the current levels of lithium carbonate production for approximately 21 years. Assuming certain operating conditions are satisfied, our annual lithium carbonate production capacity is estimated to be approximately 6,000 metric tons at our Silver Peak facility. However, no assurance can be given that the indicated levels of production of lithium carbonate at either Silver Peak or La Negra will be realized.

Production Facilities

We extract lithium through solar evaporation of our ponds at the Salar de Atacama, Chile and Silver Peak, Nevada. In addition, we use fuel gases and electricity as our source of power at the Salar de Atacama, La Negra and Silver Peak facilities. From time to time, we experience interruptions in the supply of electricity to our Silver Peak facilities, but we do not believe these interruptions materially impact our operations.

As of December 31, 2013, the combined net asset value (which equals the historical cost less accumulated depreciation and amortization) of our extracting facility at the Salar de Atacama and our processing facility in La Negra, Chile was approximately $284 million and the net asset value of our extracting and processing facility in Silver Peak, Nevada was approximately $13 million.

Subsequently, in other locations in the United States, Germany, Taiwan and India, we further process the lithium carbonate and lithium chloride into lithium hydroxide, organo-metallics and special salts, depending on the specific product. Specifically, we use lithium carbonate to produce: (i) technical and battery grade lithium hydroxide, including high-purity lithium hydroxide for advanced transportation batteries, at our Kings Mountain facility in North Carolina, which is a state-of-the-art lithium hydroxide plant that commenced production in August 2012; (ii) butyllithium and specialty products at our facility in New Johnsonville, Tennessee; (iii) butyllithium, lithium chloride, specialty products, lithium-hydrides, cesium and special metals at our facility in Langelsheim in Germany; (iv) butyllithium at our facility in Taichung in Taiwan; and (v) butyllithium at our facility in Gujarat, India. In addition, we use third party processors to produce lithium metal from lithium chloride, which we then process lithium metal into other specialty products at our facilities.

In total, our Lithium segment operates a total of seven plants in five countries. With the exception of the Gujarat property in India, we own all of these facilities. In addition, in the first quarter of 2012, we began construction of a new 20,000 metric ton lithium carbonate plant at our La Negra, Chile facility. We expect the construction of the plant to be completed in the second quarter of 2014 and the commencement of production (which requires start-up, commission and certification of product quality by our customers) to commence thereafter. We consider the condition of our plants and equipment to be suitable and adequate for the businesses we conduct, and we maintain our plants and equipment regularly.

Lithium Extraction By-Products: Potash and Bischofite

In addition, we extract a precursor of potash and bischofite as a by-product of our lithium extraction activities at our facilities at the Salar de Atacama, Chile and Silver Peak, Nevada, but we produce potash and bischofite only at the Salar de Atacama. Pursuant to our contract with the Chilean government, we are required to make an annual royalty payment to the Chilean government in an amount equal to 3% of sales for any potash sold at the Salar de Atacama. During the fiscal year ended December 31, 2013, we produced approximately 148,500 dry metric-tons of potash and approximately 472,000 metric tons of bischofite from the Salar de Atacama. During the year ended December 31, 2013, we paid royalties of approximately $1.2 million related to our potash sales. The annual capacity of the potash plant at the Salar de Atacama is approximately 170,000 dry metric tons. Our annual bischofite production capacity is determined principally by our pumping rate during such year. The sale of bischofite is not material to our results of operations.

Talison

In December 2013, we entered into definitive agreement, which is filed as an exhibit to this Report, with Tianqi Group HK Co., Limited, a wholly-owned subsidiary of Chengdu Tianqi Group Co., Ltd., to acquire a 49% interest in Windfield Holdings Pty Ltd, which directly owns 100% of the equity of Talison Lithium Pty Ltd, a company incorporated in Australia (Talison). Talison, through its wholly-owned subsidiaries, owns and operates a lithium mine in Greenbushes, Western Australia and mines lithium ore, which is then milled and processed to separate lithium concentrate from the rest of the ore. Talison currently sells the lithium concentrate to third parties who further process the concentrate into lithium carbonate and lithium chloride. Talison has a leading position in the growing Chinese lithium concentrates market and produces two categories of lithium concentrates: (i) technical-grade lithium concentrates which have low iron content for use in the manufacture of glass, ceramics and heat-proof cookware; and (ii) a high-yielding chemical-grade lithium concentrate, which is used to produce lithium chemicals which form the basis for manufacture of lithium-ion batteries for laptop computers, mobile phones, electric bicycles and electric vehicles.

The acquisition of a 49% interest in Talison is currently expected to close in the first half of 2014, subject to receipt of the regulatory approvals. We cannot assure that this acquisition will close in a timely manner or at all.

Upon completion of the acquisition of a 49% interest in Talison, we plan on entering into a lithium concentrate distribution agreement with Talison Lithium Australia Pty Ltd (Talison Australia), a subsidiary of Talison. Pursuant to such distribution agreement, we will have an exclusive distribution right for a period of at least 20 years for technical grade lithium concentrate produced by Talison Australia on a worldwide basis excluding China. In addition, we will enter into a chemical grade lithium concentrate off-take agreement with Talison Australia pursuant to which we will be entitled to up to 50% of Talison Australia s production of chemical grade lithium concentrate also for at least 20 years.

According to the National Instrument 43-101 Technical Report, titled Greenbushes Lithium Operations, Located in Western Australia- Australia, dated December 21, 2012, prepared by certain qualified persons (as such term is defined under National Instrument 43-101), which is publicly available, the Talison mine has approximately 61.5 million metric tons of proven and probable reserves of spodumene (a lithium-bearing mineral), with an average grade of 2.8% lithium oxide. Using these figures, the lithium reserves of the Talison mine are estimated to be approximately 800,000 metric tons of lithium or approximately 4.3 million metric tons of lithium carbonate equivalents.

Principal Business Divisions

Lithium

Lithium Salts. We develop and manufacture basic lithium compounds, which serve a wide range of industries and applications, and potash. Our products include: (1) lithium carbonate, which is used as a fluxing agent for enamels, glass and ceramic production to lower process temperature in aluminum electrolysis, and as a cement additive for construction applications; (2) lithium hydroxide, which is principally used in high performance greases for automotive and industrial applications; (3) lithium nitrate, which is principally used in the rubber industry; (4) lithium chloride, which is principally used in gas and air treatment; and (5) potash, which we produce as a by-product of the lithium brine production at our salar in Chile.

*Special Salts.*We develop and manufacture products that are specialties within the salts business including: (1) lithium phosphate which is used as a catalyst for chemical reactions; (2) lithium bromide, which is traditionally used for air conditioning applications and (3) lithium carbonate pharmaceutical grade, which is used in pharmaceutical applications in the United States and Europe.

Butyllithium/Lithium Metal. Butyllithium is used as a polymerization initiator for synthetic rubber and thermoplastic elastomers and as a reagent for the synthesis of active pharmaceutical ingredients and agrochemicals. Lithium metal is used in organic synthesis processes, primarily in the area of steroid chemistry and vitamins. Generally, these products require a high degree of handling, transport and application know-how and customer service due to their high reactivity. We benefit from being a major supplier with butyllithium manufacturing and/or handling facilities in the United States, Germany, Taiwan and India.

Battery Products. We develop and manufacture lithium products for electronic applications, mainly for the primary (disposable) and secondary (rechargeable) battery industries. Our major product is battery grade lithium carbonate, which is the main component used in the production of thin, lightweight lithium-ion batteries. Lithium-ion-based batteries are used extensively in consumer electronics, such as mobile phones, camcorders, laptops and power tools. Our other products are battery grade lithium hydroxide, which has become more important for the development of high-performance lithium-ion batteries, and battery grade lithium metal, which is used as anode material for primary batteries. We are currently introducing a new generation of conductive lithium salts to the battery market, which we believe has the potential to drive significant growth in the future. We also expect increased demand for lithium products as a result of increased demand for longer-life lithium-based batteries in electric and hybrid electric automobiles.

Lithium Specialties. We develop and manufacture lithium compounds and other products for life science applications, such as special reagents for the synthesis of drug intermediates as well as for the flavor and fragrances industry. The principal products in this business division are lithium aluminum hydride and lithium amides. We also produce various other compounds which include lithium metal, grignard reagents and alkoxides. Our research and development team often works closely with research and development departments of pharmaceutical companies, especially in the European market, in order to develop products and solutions tailored for their needs. In addition, several variations of our lithium specialties are designed to produce liquid crystals for flat screens.

Metal-based Specialty Chemicals

Special Metals. We develop and manufacture a unique range of products based on special metal compounds derived from cesium, zirconium, titanium, barium and rubidium. These products are used in highly specialized, technology-driven end-applications such as X-ray diagnostic systems and airbags, and serve various end-markets, such as chemical, pharmaceutical, metallurgical, automotive, electronics and pyrotechnical industries.

Competition

Lithium. We believe the global lithium market consists of numerous producers and a number of other small producers mainly from China. We believe that we are a leading global provider of lithium compounds. While we offer a diverse range of products from basic lithium compounds to specialty lithium compounds, FMC Corporation offers mainly specialty lithium compounds, and Sociedad Quimica y Minera de Chile S.A. (SQM), Galaxy Resources Limited and Canada Lithium offer a more limited product line focused on basic lithium compounds. Competition in this market is based on product quality, reliability of products and customer service.

Metal-based Specialty Chemicals. We believe that in the metal-based specialty chemicals business, we hold a leading market position in its niche markets. Key competitors include Cabot Corporation and Sigma-Aldrich Corporation. Competition is based on product quality and product diversity.

Customers

Our Lithium segment serves approximately 1,500 customers worldwide in its lithium and special metal business. Lithium s customers include Bayer CropScience (a division of Bayer AG), Syngenta AG, Umicore S.A., Samsung SDI Co. Ltd. and Royal DSM N.V.

Surface Treatment (56*% of 2013 net sales*)

Our Surface Treatment segment operates under the *Chemetall* brand name and develops and manufactures metal surface treatment products and services for a wide range of industries and end markets. Our Surface Treatment segment generated net sales of $770.2 million, $723.2 million and $743.2 million for the years ended December 31, 2013, 2012 and 2011, respectively. See Item 8. Financial Statements and Supplementary Data - Note 3, Segment Information, for additional financial information regarding our Surface Treatment segment.

We believe that our Surface Treatment segment is a leading global supplier of surface treatment products and solutions. Surface Treatment s products are used for a variety of applications and serve the automotive, aerospace and general industrial markets, including steel and metal-working industries. This business line supplies more than 5,000 different products, many of which are based on proprietary formulations and extensive application know-how, to approximately 50,000 customers and operates in over 20 countries for production, warehousing or research and development. Surface Treatment operates in the following core end-markets: Automotive Technologies and Components, Cold Forming and Coil, General Industry (including Aluminum Finishing) and Aerospace Technologies.

We develop and supply products and solutions for the chemical pre-treatment of metals and other substrates, some of which are customized for individual customers and applications. Our products and solutions are critical to many areas of the metal processing industry because they protect metals from corrosion, facilitate forming and machining, allow parts to be optimally prepared for the painting process where paint adhesion is critical and ensure good coating adhesion. Other products are used in the cleaning and maintenance of aircraft. As an integrated part of the business, we also offer a full range of customer services, including process control and analysis of chemical baths at clients facilities.

Surface Treatment competes in markets characterized by significant barriers to entry, proprietary manufacturing technologies and know-how, demanding product-handling requirements, rigorous product quality and performance standards and specifications and longstanding service-intensive customer relationships. In order to remain competitive, we are focused on developing new products, improving process technologies, expanding our customer base, and broadening our technology capabilities in existing and new markets through internal research and development and bolt-on acquisitions. In recent years, we have expanded our production in India and built a new state-of-the-art plant in Michigan in the United States, and consolidated our United States production sites into the Michigan plant. These investments have helped us meet the increasing demand for our product portfolio. In 2013, we began expansion of our Singapore production facility to help fulfill the growing demand in this region, as well as to increase our product portfolio. We also are involved with a number of research and development projects with industrial partners and scientific institutes on a regular basis that help us fulfill our needs for more cost efficient and environmentally compatible technologies. As a result, new products and improved technologies were launched in recent years and more are expected in the future.

To further strengthen our market position in Asia, in July 2013, we acquired the remaining 50% interest of our joint venture in India. The results of the former India joint venture were fully consolidated as of such date. This business focuses on automotive and other pre-treatment technologies. In addition, to further strengthen our market position in the coil coatings and general industry markets, in 2013, we completed two smaller bolt-on acquisitions in Germany.

The core end-markets that Surface Treatment operates in are as follows:

Automotive Technologies and Components. We provide surface treatment products and solutions for automotive original equipment manufacturers (OEMs), including an entire range of products and services for use in the paint shop step of car-body and automotive component manufacture. The products and services we provide typically represent a low percentage of total car body production costs, but have high value in terms of corrosion protection and surface quality. Major applications include car-body treatment (zinc-phosphating), paint coagulation and cleaning and pre-treatment of automotive components such as aluminum wheels. Our services typically include intensive process control and chemical management in the customer s production processes. We are in the process of implementing replacements for zinc-phosphate globally, and believe that this represents an attractive growth area in this market. We compete for the growth of this segment in the emerging markets through our joint ventures in China, as well as with our 100%-owned entity in India.

Cold Forming and Coil. We provide products and services used to facilitate the cold forming of tubes, wire drawing and cold extrusion of metal. We provide products and services used in forming, cleaning and the pre-treating of metal sheets used in the production of steel and aluminum coil.

General Industry. General industry includes the largest number of customers among the Surface Treatment businesses. We offer a range of products and services to a broad range of industrial end-markets that have metal surface treatment applications, including cleaning, activation, conversion coating and final rinsing. Our products include cleaners, iron phosphates, coolants, paint strippers and flocculants. We have also expanded our product range in North America and China, by adding products in the field of metalworking fluids. Over the last few years, we have introduced a new generation of iron-phosphating products in the U.S. market, which we expect will provide growth in the next few years, and began offering silane or oxsilan-based systems. The markets for General Industry include household appliances manufacturing, can producers, heating, ventilation, aluminum finishing and other diverse end-markets. In addition, we produce specialty products, which are similar to metal surface treatment products, but are used on glass substrates for glass manufacturers, including specialty cleaners, polishing products, cutting oils and cooling lubricants.

Aerospace Technologies. We provide products and services for aerospace OEMs, airlines and maintenance companies. Aerospace Technologies focuses on four major application areas: cleaning; corrosion protection; maintenance chemicals; and sealants. Cleaning products are used for the interior and exterior cleaning of airplanes and range from daily cleaning to complete aircraft overhaul. Corrosion protection products include waxes used to protect airframes. Maintenance chemicals for aircraft engines and turbines include high performance cleaners and products for non-destructive testing of engines, and aircraft sealants provide high technology sealing solutions for airplanes and are expected to contribute to growth in the next few years. In the last few years, we introduced new low-density sealants in the market place.

Competition

We believe we are a leader in the global metal surface treatment market. Our competitors include Henkel AG & Co. KGaA, Nihon Parkerizing Co., Ltd., PPG Industries, Inc. and Nippon Paint Co., Ltd. Competition in this market is based primarily on customer service, product quality and technological capabilities.

Customers

Surface Treatment serves a large customer base that varies widely among product groups and industries served. Surface Treatment s largest customers include ArcelorMittal, Daimler AG, European Aeronautic Defence and Space Company (EADS) N.V., Ford, Renault-Nissan and Volkswagen AG. Specifically, with respect to Surface Treatment s four core end-markets:

- Automotive Technologies and Components business division serves approximately 300 customers, primarily global OEMs, and approximately 1,000 small to large customers in the components markets;
- Cold Forming and Coil business division serves approximately 1,000 mid-size to large customers;
- General Industry business division serves approximately 45,000 small to large customers in a broad range of industries worldwide; and
- Aerospace Technologies business division serves approximately 4,000 small to large customers worldwide.

Corporate and other ***(9% of 2013 net sales)***

The Corporate and other classification primarily includes the results of operations of the metal sulfides business. Our Corporate and other segment generated net sales of $128.2 million, $126.2 million and $154.4 million for the years ended December 31, 2013, 2012 and 2011, respectively. See Item 8. Financial Statements and Supplementary Data - Note 3, Segment Information, for additional financial information regarding our Corporate and other segment.

Metal Sulfides

Metal Sulfides develops and manufactures natural and synthetic metal sulfides used in brake pads, clutch facings, cutting and grinding wheels, and lubricants. In order to further strengthen our competitive position in the metal-based specialty chemicals market, we are focused on the production of new variations of synthetic metal sulfides. We also continuously monitor our customers industries for potential new applications for our products. In addition, we expect to expand our business by penetrating growth areas such as India and China.

We expect that demand for synthetic metal sulfides will increase the transition from natural sulfides to synthetic sulfides spurred in part by higher performance of synthetic sulfides, environmental concerns and the transition from drum to disk brakes in Asia and the Americas. We believe further opportunities for growth exist from the use of the newly developed metal sulfides as solid lubricants or as additives for plastics.

This business division supplies the friction, abrasives and lubricant industry. Friction stabilizers enhance the power and performance of brake pads and clutch facings and primarily serve the automotive supplier industry. Abrasive additives improve performance and wear of resin bonded cut-off and grinding wheels. Solid lubricants are used by grease and lubricating paste manufacturers as additives for specialized high-performance applications. The demand for metal sulfides is driven primarily by the demand in the automotive supplier industry.

Competition

We believe that in the metal-sulfides business, we hold a leading market position in its niche markets. We have a leading position in friction materials and are the only supplier offering a full product range of friction stabilizers and abrasive additives based on metal sulfides. Key competitors include: Dow Corning Corporation, Catalise Industria e Comercio de Metals Ltda and Nachmann S.r.I. Competition in the metal-sulfides markets is based on product quality and product diversity.

Customers

Metal sulfides serves approximately 300 customers worldwide and its customers include all of the friction manufacturers supplying to the original equipment manufacturer (OEM) and original equipment service (OES) market segment.

Discontinued Operations

As described above, in September 2013, we entered into an agreement to sell the TiO2 Pigments and Other Businesses, the principal ones of which are described below. This transaction is expected to close during the first half of 2014. There can be no assurance that this transaction will be completed in a timely manner, if at all.

Titanium Dioxide Pigments

Our Titanium Dioxide Pigments segment operates under the *Sachtleben* brand name and is a leading producer of high quality chemical products with a unique range of small inorganic particles that add significant value to customers products and reduce the cost of customers production processes. Titanium Dioxide Pigments comprises two business lines: (1) Titanium Dioxide; and (2) Functional Additives.

Titanium Dioxide

Our Titanium Dioxide business line is a leading producer of specialty grade titanium dioxide (TiO2), serving a wide variety of customers in the synthetic fibers, plastics, paints, packaging inks, coatings, cosmetics, pharmaceuticals and paper industries. TiO2 is a fine white powder that derives its value from its unparalleled whitening strength and opacifying ability, which is commonly referred to as hiding power. Our Titanium Dioxide segment s principal products include TiO2 in anatase grade, TiO2 in rutile grade and titanium specialties. This segment also provides recycling services for sulfuric waste acid.

There are two ways of producing TiO2: the sulfate process and the chloride process. The chloride process permits production of only rutile TiO2 and is primarily suited for large volume production of standard TiO2 grades. We believe most of the globally installed TiO2 capacity uses the chloride process as opposed to the sulfate process. Unlike the chloride process, the sulfate process is capable of producing both the rutile and anatase grade of TiO2. We employ the sulfate process for TiO2 production and thus, the output from most of the globally installed TiO2 production capacity does not compete with our anatase products.

We believe that we have a competitive advantage in fiber anatase production and special sophisticated anatase applications based on our strong technological capabilities, long-term customer relationships and extensive test runs with regular monitoring of product and process parameters. Although it represents a negligible part of the fiber material cost, TiO2 application know-how and a longstanding application track record of homogeneous anatase crystals, both of which avoid production interruptions and excessive wear or breakdown of our customers equipment, are critical to our customers. We intend to focus our rutile business on selected markets and applications and to further develop our titanium specialties business. We expect this segment to benefit from sales of newly introduced nano-particle titanium dioxide pigments that are used to provide ultraviolet light protection for cosmetics, plastics and coatings.

In July 2012, our Sachtleben titanium dioxide venture acquired certain business assets, primarily inventory and other production assets, of crenox GmbH, a German titanium dioxide producer from the insolvency administrator. This acquisition further enhanced Sachtleben s position as a leading global supplier of high-quality titanium dioxide pigments.

Principal Products

TiO2 in Anatase Grade. We develop and manufacture high quality anatase TiO2 pigments. These pigments are sold primarily to the global synthetic fiber industry, as well as paper, food and pharmaceutical industries. We believe our anatase pigment, sold under the brand name *Hombitan*, is a leading global-selling TiO2 product for applications in the synthetic fiber industry.

TiO2 in Rutile Grade. We develop and manufacture rutile TiO2 pigments, which are mainly used in special applications such as selected coatings, paints, packaging inks, plastics and laminated paper production processes. In this product area, we are geographically focused on the European market. Rutile-based TiO2 pigments generally possess performance characteristics different from anatase-based pigments. Rutile-based pigments significantly improve the weatherability and durability of polymer products by providing protection against yellowing and preventing embrittlement of the material. Our rutile grades are state of the art products and are used in applications with high technical requirements.

Titanium Specialties. Our titanium specialties products primarily include nano-particles, which are exceptionally fine-particled, transparent and easy-to-use pigment formulations that are used across a large and diverse range of applications in small volumes. For example, the specialty grade TiO2 products are used as UV-absorbers in sun protection cosmetics. In addition, the new nano-particles form the basis for innovative wood-protection products and innovative color variations by the paints and coatings industry. Other uses include catalysts, gas cleansing, photocatalysts and intermediates for special ceramics.

Competition

Titanium Dioxide Pigments key competitors include: (1) Fuji Titanium Industry Co., Ltd. and Kronos Worldwide, Inc. for anatase-based TiO2; (2) DuPont Titanium Technologies, Cristal Global, Tronox Incorporated and Huntsman LLC for rutile-based TiO2; and (3) Tayca Corporation, Ishihara Corporation and Evonik Degussa for TiO2 specialties. Competition in the markets in which Titanium Dioxide competes is generally based on technological capabilities, product quality, price in rutile grade and customer service.

Customers

Titanium Dioxide Pigments customers include leading manufacturers of paints, such as Akzo Nobel Coatings, Inc., PPG Industries, Inc., BASF Group and E.I. duPont de Nemours and Company; printing inks such as Sun Chemical Corporation, Flint Group and Siegwerk Druckfarben AG; fibers, such as Nan Ya Plastics Corporation and Invista Inc.; plastics, such as Ampacet Corporation and Ineos Group Limited; and paper, such as Munksjo Inc. and Papierfabrik August Koehler AG.

Functional Additives

Our Functional Additives business line is a leading global manufacturer of barium-based and zinc-based inorganic fine white pigments and additives. The main function of these products is to improve brilliance of colors and shine of coatings, improve the mechanical strength of plastic parts and prevent degradation due to exposure to light. Our Functional Additives business line serves diverse end-markets, including the plastics industry, the coatings industry and the pharmaceutical industry.

Principal Products

Barium-based Additives. We produce highly dispersed powders of barium sulfate and are the largest global producer of precipitated synthetic barium sulfates (Blanc Fixe). We provide a unique range of barium-based additives customized for applications in coatings, plastic, colorants, lubricants, PVC stabilizers and thermoplastics, fibers and paper to improve optical, chemical and mechanical properties. We also produce an X-ray-grade barium sulfate used as a contrast agent in medical applications, such as X-rays for the stomach and intestine area.

Zinc-based Additives. We believe we are also a leading producer of pure zinc sulfide pigments, mainly used in glass fiber reinforced plastic parts and coatings and a leading supplier of Lithopone, a white zinc sulfide pigment which is used in plastics and coatings.

Competition

Key competitors for barium-based additives include Solvay S.A., Gruppo Chimico Dalton S.p.A., Sakai Chemical Industry Co., Ltd. and Chinese barium-producers. Key competitors for zinc-based additives include Chinese Lithopone producers. Competition in the functional additives market is primarily based on application know-how, brand recognition, product quality and, to a certain extent, price.

Customers

Functional Additives customers include E.I. duPont de Nemours and Company, Ampacet Corporation, BASF Group, Akzo Nobel Coatings, Inc. and A. Schulman, Inc.

Color Pigments and Services

The Color Pigments and Services business line is a global producer of synthetic iron-oxide and other inorganic pigments in a wide range of yellow, red, orange, ultramarine blue, black, manganese violet or blended shades, and serves the construction, paints and coatings, plastics, and specialty application markets with powder, granular and liquid grades. Color Pigments and Services focuses on developing and manufacturing high value-added inorganic pigments. The business also offers a number of unique pigment dispensing systems. The Color Pigments and Services business line has been driven by product innovation, our brand names and our customer and technical service, including customer-specific color blending.

We announced that we will build an advanced technology production facility in Augusta, Georgia for the synthesis of iron-oxide pigments. This plant is expected to supply the highest quality color pigments to North American customers, to strengthen customer service and to reduce lead time and improve product development potential. This plant is estimated to be completed in early 2015.

Principal Products

Construction Color Pigments and Services. We develop and manufacture principally iron-oxide pigments for manufacturers of construction products for use in the coloring of concrete products, including paving stones, bricks, concrete blocks, roofing tiles, stucco and mortar. Color Pigments and Services major U.S. brand is *Davis Colors* and its other key brands include *Granufin/Granumat, Hydrotint, Mix-Ready* and *Chameleon*. *Granufin* is a unique, dry, microgranulated pigment that combines the flow characteristics of a liquid with the storage and handling advantages of a powder. The *Granumat* dispensing system offers a variety of configurations and features designed to accommodate the varying requirements and budgets of concrete product manufacturers. *Granufin* pigments and the *Granumat* system improve product handling and color consistency for our customers. Our *Chameleon* system, which works in combination with our liquid pigments, automatically weighs, blends and conveys colors into a ready-mix truck using a standard personal computer and custom-developed Windows-based software.

Paints, Coatings and Colorants. We also develop and manufacture color pigments for the paints, coatings, plastics, paper and rubber end-use markets including our brands *Ferroxide, Trans-oxide, Solaplex* , *Solarox* and *Colourplex*. We produce a wide variety of pigments for these markets that include synthetic iron-oxides, corrosion inhibitor pigments, complex inorganic color pigments and process natural pigments such as burnt umbers and siennas. The largest application for these products is colorant used in architectural, industrial and special purpose paints and coatings. Color, ease of dispersion and chemical stability are the primary characteristics of our products, which can be used in a wide variety of both solvent and water-borne systems. We believe that a number of our products are considered industry standards in the markets in which we compete, such as our Mapico yellow and Copperas red pigments for architectural and industrial applications and our heat-stable tans, which can tolerate applications requiring high-temperature processing, such as plastic compounding and roofing granules. Solarox is a new generation of iron-oxide pigments that enable surfaces to self-clean, reduce air pollution and inhibit microbial growth. We have successfully patented the product in Europe and North America and expect greater recognition and demand as climate warming initiatives gain traction.

Specialties. Our iron-oxide pigments are also used in a wide variety of specialty applications such as toner for large printers and copiers, security inks used to print bank notes, catalysts for styrene production and cosmetics. Each of these markets requires specialized pigments with unique properties which are often as important as the coloring characteristics. For example, printer toners require specific magnetic properties whereas pigments used in cosmetics require color and purity.

Competition

We believe that there are a significant number of producers of iron-oxide pigments across the globe at both the pigment synthesis and finishing levels with whom we compete. We believe these producers include Lanxess AG, Cathay Pigments Group, Interstar Materials Inc. and Shanghai Yipin Pigments Co., Ltd. as well as other producers in Japan and China. Competition in this segment is based on customer service, product attributes, such as product form and quality, and price. Product quality is critical in the higher end of the business on which Color Pigments and Services focuses, as inconsistent product quality can have an adverse impact on the color consistency of the end-product.

Customers

Color Pigments and Services key customers include Akzo Nobel, Oldcastle (CRH plc), The Sherwin-Williams Company, Evonik Degussa GmbH, and W.R. Grace & Co., each of which has been our customer for at least ten years. Color Pigments and Services customer base is highly fragmented.

Timber Treatment Chemicals

The Timber Treatment Chemicals business line is a manufacturer of wood protection products primarily in North America and Europe, and we market these products through our joint venture formed in 2007 with The Dow Chemical Company. Wood protection products enhance the performance of wood by increasing its longevity through protection from decay and fungal or insect attack. Our specialty timber chemicals also add water repellency, fire retardancy, mold inhibition and other properties to wood products. Timber Treatment Chemicals products include wood protection products based on our alkaline copper quaternary, or ACQ technology, which was awarded the Environmental Protection Agency (EPA) Presidential Green Chemistry Challenge Award in 2002; *Ecolife*, our new non-metallic wood preservative technology; copper azole; and chromated copper arsenate, or CCA. In 2008, we introduced our newest *Ecolife* system which utilizes a high-performance non-metallic preservative with enhanced environmental benefits. Introductory commercialization began in 2008, and in 2012, we began to see a positive impact from this technology. We expect *Ecolife* to take advantage of market desire for non-metallic wood protection products and the growth potential in the development and commercialization of the next generation of wood protection products. Other products include Clearwood, our wood protection product for wood windows and doors, as well as a range of specialty additives with fire retardant, water repellent or moldicide properties. Applications for our products include wood protection products used for decking, fencing, playground equipment, garden furniture, house construction materials, utility poles, and other wood constructions.

In addition, Timber Treatment Chemicals provides a broad range of technical expertise and services to its customers. In particular, Timber Treatment Chemicals works closely with its customers to assist them in reducing the total cost of their manufacturing process by supplying timber treatment chemicals as well as treatment equipment along with technical support. We believe that Timber Treatment Chemicals is a leading provider in North America and Asia of new generation alternative timber treatment chemicals, such as ACQ and *Ecolife*, which provide enhanced environmental benefits, as they do not contain chrome or arsenic. Many of our Timber Treatment products are registered pesticides and subject to extensive regulation.

Our Timber Treatment Chemicals business also manufactures inorganic chemicals such as nitrates and chlorides for various industrial applications including chemicals that are added to concrete as curing accelerants and corrosion inhibitors, chemicals that are used for odor control in water treatment, galvanizing fluxes, micronutrients, pesticides and catalysts used in the manufacture of textile resins.

Principal Products

We develop and manufacture a broad range of wood protection products, fire retardant and specialty chemicals for use in residential and industrial wood applications. In addition, we provide treatment equipment, which facilitates the handling and treatment of wood and chemicals, and we provide comprehensive technical support services to our customers. Timber Treatment Chemicals key brands include *Ecolife, Preserve, Preserve Plus, Ultrawood, D-Blaze, Clearwood* and *SupaTimber.*

We also develop and manufacture inorganic metallic chemicals for certain specialty markets. These include zinc chloride-based products, other chlorides, and a range of nitrates and other chemicals. Some of these products are manufactured using by-products from other large chemical companies.

Competition

We believe that our Timber Treatment Chemicals business is one of the leading manufacturers of wood protection products in North America, along with Lonza Group Ltd. and Osmose, Inc. Other competitors, particularly in Europe, are BASF Group, Kurt Obermeier GmbH & Co. KG and Rutgers AG. Competition for wood protection products is mainly based on price, customer support services, innovative technology and product range. In the inorganic chemicals market, we operate in niche areas, and therefore have few competitors overall. Competition in the inorganic chemicals market is mainly based on quality, customer support services and price.

Customers

Timber Treatment Chemicals sells its products primarily to wood processors who pressure-treat wood. Major customers include Allweather Wood, LLC., C.M. Tucker Lumber Companies, LLC., Envirofor Preservers Ltd., Georgia-Pacific Corporation, Jeld-Wen, Inc., Koshii Preserving Co. Ltd., Land and Sea Forest Products of Pennsylvania Corporation, Spartanburg Forest Products, Inc., Sunbelt Forest Products Corporation, and Sundre Forest Products, Ltd. Customers of our inorganic chemicals product line include Evonik Degussa GmbH, Rohm and Haas Company (a subsidiary of The Dow Chemical Company), Nalco, An Ecolab Company and W.R. Grace & Co. Most of these companies have been our customers for at least ten years.

Raw Materials

We purchase raw materials and chemical intermediates from a large number of third parties. Major requirements for our key raw materials and energy are typically satisfied pursuant to contractual agreements and/or medium- or long-term relationships with suppliers. We are generally not dependent on any one supplier for a major part of our raw material requirements, but for the most part, certain important raw materials are obtained from a few major suppliers. In general, where we have limited sources of raw materials, we have developed contingency plans to minimize the effect of any interruption or reduction in supply, such as sourcing from different facilities, multiple suppliers or utilizing alternative formulations.

Temporary shortages of raw materials may occasionally occur and cause temporary price increases. In recent years, these shortages have not resulted in unavailability of raw materials. However, the continuing availability and price of raw materials are affected by unscheduled plant interruptions occurring during periods of high demand, domestic and world market and political conditions, as well as the direct or indirect effect of governmental regulations. During periods of high demand, our raw materials are subject to significant price fluctuations, and, such fluctuations may have an adverse impact on the results of operations of our business. The impact of any future raw material shortages on our business as a whole or in specific geographic regions or in specific business lines cannot be accurately predicted.

Continuing Operations

We have a broad raw material base with the cost of no single raw material representing more than 7% of our cost of products sold in 2013. Raw materials constituted approximately 58% of our 2013 cost of products sold. The table below lists the key raw materials in 2013 (in terms of dollars) for our continuing operations recorded in cost of products sold and the principal products for which the materials were used.

Raw Material	Segment/Category	Products
Tin	Corporate and other	Metal sulfides
Phosphoric Acid	Surface Treatment	Metal surface treatment
Sodium Carbonate	Lithium	Lithium carbonate
Antimony Sulfide	Corporate and other	Metal sulfides
N-Butylchloride	Lithium	Butyllithium
Potassium Hydroxide	Surface Treatment	Metal surface treatment

Tin is used in our Corporate and other category in the production of metal sulfides and is purchased from five suppliers under annual supply agreements. Prices of tin are tied to market conditions.

Phosphoric acid and potassium hydroxide are used in our Surface Treatment segment for metal treatment chemicals and are purchased from multiple global sources. Currently, there are no long-term purchase contracts for these raw materials.

Sodium carbonate is a key raw material used in our Lithium segment to produce lithium carbonate and is used at our production facilities in La Negra, Chile and Silver Peak, Nevada. Sodium carbonate is sourced from two suppliers, each under two long-term contracts that expire at the end of 2014 with prices tied to market conditions.

Antimony sulfide is used in our Corporate and other category in the production of metal sulfides and is purchased from a number of sources. Prices of antimony sulfide are tied to market conditions.

N-butylchloride is used for the production of butyllithium at our facilities in Langelsheim, Germany, Taichung, Taiwan and New Johnsonville, United States. n-butylchloride is sourced under two long-term contracts that expire at the end of 2015 with prices tied to market conditions.

In addition, lithium brine is a primary raw material for all lithium chemicals but does not appear in the above table because our cost of this raw material is low (in terms of dollars). Lithium brine is found in only a small number of locations in the world, including most significantly for us, the Atacama Desert in Chile. As described above under Reportable segments Continuing Operations Lithium Description of

the Salar de Atacama, Chile and Silver Peak, Nevada, we have a long-term contract with the Chilean government to extract lithium brine in the Atacama Desert in Chile; we believe our Chilean contract provides us with a secure long-term access to lithium. We also extract lithium brine at our site in Silver Peak, Nevada pursuant to a settlement agreement with the U.S. government. In addition, there are a limited number of producers in the world of lithium metal from which we can source our lithium metal requirements. Specifically, we provide lithium chloride to certain producers who toll manufacture lithium metal for us. One of such toll manufacturers experienced production issues in early 2014. Any disruption at this facility could adversely affect our ability to meet market demand for these products, our relationships with our customers and our results of our operations.

Discontinued Operations

The table below lists the key raw materials in 2013 (in terms of dollars) for our discontinued operations of our TiO2 Pigments and Other Businesses and the principal products for which the materials were used.

Raw Material	Business	Products
Titanium-bearing slag	Titanium Dioxide Pigments	Titanium Dioxide
Ilmenite	Titanium Dioxide Pigments	Titanium Dioxide
Copper	Timber Treatment Chemicals	Wood protection products
Phosphoric acid	Timber Treatment Chemicals	Wood protection products
Zinc/Zinc oxide	Titanium Dioxide Pigments/Color Pigments and Services	Zinc-based pigments, zinc phosphate and tan iron-oxide
Iron-oxide	Color Pigments and Services	Iron-oxide pigments

Titanium-bearing slag and ilmenite are the most important raw materials used in the production of specialty grade titanium dioxide in our Titanium Dioxide Pigments business. We purchase titanium-bearing slag primarily from two suppliers on a long-term basis under contracts that expire at the end of 2014 and 2015. We purchase ilmenite from three suppliers under long-term contracts that expire at the end of 2015.

Copper is used in our Timber Treatment Chemicals business. We purchase copper, a commodity, from several sources. Prices for our copper purchases are tied to market conditions.

Phosphoric acid is used in our Timber Treatment Chemicals business for wood protection and is purchased from various global sources. Currently, there are no long-term purchase contracts for this raw material.

Zinc is used in our Titanium Dioxide Pigments business to produce zinc-based pigments and is purchased from a number of suppliers under long-term contracts. Zinc oxide is used in our Color Pigments and Services business in the production of tan iron-oxide and zinc phosphate and is purchased from multiple suppliers. There are no long-term zinc oxide purchase contracts in our Color Pigments & Services business.

Iron-oxide is used in the Color Pigments and Services business and is purchased from suppliers in China as a supplement to our iron-oxide production. Historically, we have received iron-oxide from multiple sources and have not experienced any significant supply shortages.

Intellectual Property

Our business is dependent to a large extent on our intellectual property rights, including patents and other intellectual property, trademarks and trade secrets. We believe that our intellectual property rights play an important role in maintaining our competitive position in a number of the markets we serve. We rely on technological know-how and formulation and application expertise in many of our manufacturing processes in order to develop and maintain our market positions. Where appropriate, we protect our new technology, applications and manufacturing processes by seeking patent protection. We have more than 3,500 patents and patent applications for our continuing operations in key strategic markets worldwide, reflecting our commitment to invest in technology and covering many aspects of our products and processes for making those products. We also own and register in multiple jurisdictions numerous trade names and trademarks applicable to our business and products which we believe are important to our business. In addition, we have entered into agreements, pursuant to which we license intellectual property from third parties for use in our business and we license certain intellectual property to third parties. We also develop intellectual property with third parties as discussed below in Research and Development.

Research and Development

We are committed to further investing in our businesses through research and development. Our research and development costs were approximately 2% of our net sales in 2013, which include certain expenses related to modifications and improvements in current products. We allocate our research and development resources selectively based on the needs and requirements of each business line to develop innovative products. Research and development costs are charged to expense, as incurred. Such costs were $22.6 million, $22.1 million and $17.6 million for the years ended December 31, 2013, 2012 and 2011, respectively.

The objective of our research and development effort is to develop innovative chemistries and technologies with applications relevant within targeted key markets. Research and development efforts are generally focused on both process development, which is the stage at which products move from development to manufacturing, and new product development. Each business line, however, also has selected long-term strategic projects with the aim to develop new competencies and technologies. For example, our Lithium business has set up a pilot plant for the recycling of lithium ion batteries.

Each of our business lines manages its own research and development effort and has separate research and development facilities dedicated to its specific area. However, where technologically feasible, advances and findings are shared between business lines to foster greater cross-fertilization of ideas and applications. In certain cases, we conduct research and development efforts with third parties, including universities, customers and other entities. We endeavor to obtain ownership of or license to, on terms favorable to us, the intellectual property developed with a third party.

International Operations

The following table presents net sales based on geographic area (attributed based on seller s location):

	Year ended December 31,		
($ in millions)	**2013**	**2012**	**2011**
Net sales:			
Germany	$ 395.4	$ 354.7	$ 380.0
Rest of Europe	365.9	352.0	392.4
United States	298.3	282.2	260.6
Chile	86.8	105.9	96.3
Rest of World	231.4	229.0	224.8
	$ 1,377.8	$ 1,323.8	$ 1,354.1

See Item 7, Management s Discussion and Analysis of Financial Condition and Results of Operations, for further details.

The following table presents the net book value of our long-lived assets located in the regions indicated:

($ in millions)	As of December 31, 2013	2012	2011
Long-lived assets (a):			
Germany	$ 285.2	$ 270.1	$ 258.3
Chile	283.8	177.4	138.3
Rest of Europe	82.5	83.1	79.0
United States	134.8	137.3	127.0
Rest of World	56.5	51.7	52.9
	$ 842.8	$ 719.6	$ 655.5

(a) Long-lived assets represent property, plant and equipment, net as presented in the consolidated balance sheets.

Sales and Marketing

We sell our products and services globally primarily through our direct sales forces, although we also sell through distributors in some of our business lines, such as in certain parts of our Surface Treatment and Metal Sulfides businesses. Each of our direct sales forces is responsible for marketing only one business line, and is administered pursuant to policies established by the management of that business line. Within each business line, the direct sales force is organized based on geographic regions, end-use applications or sub-business line divisions. As of February 1, 2014, our total in-house sales forces consisted of approximately 1,100 personnel worldwide.

Our direct sales forces interact with our customers to provide both purchasing advice and technical assistance. In general, our sales forces arrange and coordinate contact between our customers and our research and development or technical personnel to provide quality control and new product solutions. In both of our segments, many sales managers have a chemical engineering background with advanced degrees and significant technical experience in applying our products, and they play a critical role in developing client relationships and acquiring new clients. Our close interaction with our customers and tailored solutions have allowed us to develop and maintain strong customer relationships as well as focus our sales efforts on those customers who we believe will provide us with higher profit margins in recognition of our superior products, service and technical support.

Sales in each of our business lines are generally made on a purchase order basis. However, longer-term arrangements have been established with certain key customers.

Our marketing strategy is generally aimed at working directly with customers to gauge the success of our products, evaluating the need for improvements in product and process technology, and identifying opportunities to develop new product solutions for our customers and their end-use markets. We also use media activities, lectures and tradeshows as part of our sales and marketing efforts.

FDA Regulation

We are subject to regulation by the FDA with respect to certain products produced, marketed and sold by our Lithium segment, which includes pharmaceutical intermediates. Foreign, state, local and other authorities also may regulate us and our products. Regulatory agencies have established requirements that apply to the design, manufacture and marketing of pharmaceutical products. We sell our pharmaceutical intermediates to other companies that also may be regulated by such authorities.

Premarket Approval. While we are not required to seek FDA approvals for our pharmaceutical intermediates, the customers to whom we supply such products may be subject to FDA approval requirements prior to testing a new drug on humans as well as marketing a new drug for commercial use in the United States. Our customers with FDA approval for a finished drug may also be required to obtain FDA approval of design, manufacturing or labeling changes to the pharmaceutical intermediates used in their finished products.

Post-Market Compliance Requirements. Once on the market, drug manufacturers are subject to numerous post-market regulations.

If we or our customers violate FDA or other governmental regulatory requirements during either the pre- or post-marketing stages, there may be various adverse consequences. For example, in the United States, the FDA has the authority to impose fines, injunctions, and civil penalties; recall or seize products; impose operating or import restrictions, partial suspension or total shutdown of production; delay its approval or refuse to grant approval of new products; or withdraw the submission of the approved product from the market.

Safety, Health and Environmental Matters

See Item 8. Financial Statements and Supplementary Data - Note 18, Commitments and Contingencies, for a discussion of our safety, health and environmental matters.

Employees

As of February 1, 2014, we had approximately 3,500 employees, with 56% located in Europe, 17% in the United States and the remaining 27% located in the rest of the world. Of our employees, approximately one-fourth are subject to collective bargaining agreements or other similar arrangements.

We observe local customs, legislation and practice in labor relations and, where applicable, in negotiating collective bargaining agreements. Management believes that its relations with employees and their representatives are good. We have not suffered any material work stoppages or strikes in our worldwide operations in the last five years.

Available Information

Rockwood Holdings, Inc. files annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission (the SEC). You may read and copy any documents we file at the SEC s public reference room at Room 1580, 100 F Street, N.E., Washington D.C. 20549. Please call the SEC at 1-800-SEC-0330 for information on the public reference room. The SEC maintains a website that contains annual, quarterly and current reports, proxy statements and other information that issuers file electronically with the SEC. The SEC s website is *www.sec.gov*.

The Company s website is *www.rocksp.com*. We have made available, free of charge through our website, our annual report on Form 10-K, and will make available our quarterly reports on Form 10-Q and current reports on Form 8-K, as well as any amendments to those reports filed or furnished pursuant to the Securities Exchange Act of 1934 (the Exchange Act) as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The Company s proxy statement will be available when filed with the SEC.

From time to time, Rockwood may use its web site as a channel of distribution of material company information. Financial and other material information regarding the Company is routinely posted on and accessible at *http://www.rockwoodspecialties.com/rock_english/news/compnews.asp.* In addition, you may automatically receive email alerts and other information about Rockwood by enrolling your email by visiting the Rockwood Holdings, Inc. Alert Form section at *http://www.rockwoodspecialties.com/rock_english/ir/alertform.asp.* The foregoing information regarding our website and its content is for convenience only. The content of our website is not deemed to be incorporated by reference into this report and should not be deemed to have been filed with the SEC.

Item 1A. Risk Factors.

You should carefully consider these risk factors in evaluating our business. In addition to the following risks, there may also be risks that we do not yet know of or that we currently think are immaterial that may also affect our business, potentially material. If any of the following risks occur, our business, results of operations, cash flows or financial condition could be adversely affected.

Leverage Our available cash and access to additional capital may be limited by our leverage.

We are leveraged and have significant debt service obligations. As of December 31, 2013, we had $1,295.4 million of indebtedness outstanding and total equity of $3,049.2 million. Our indebtedness is constituted principally by $1,250.0 million of 4.625% Senior Notes due in 2020 (2020 Notes) issued by the Company s indirect 100% owned subsidiary, Rockwood Specialties Group, Inc. (RSGI) in September 2012. The 2020 Notes are jointly and severally, and fully and unconditionally guaranteed on a senior unsecured basis by Rockwood and certain of RSGI s existing and future 100% owned domestic subsidiaries. The 2020 Notes pay interest at a rate of 4.625% per annum semi-annually on April 15 and October 15 of each year and mature on October 15, 2020.

This level of indebtedness could have important negative consequences, including:

- we may have difficulty obtaining financing in the future for working capital, capital expenditures, acquisitions or other purposes;

- we will need to use a substantial portion of our available cash flow to pay interest and principal on our debt, which will reduce the amount of money available to finance our operations and other business activities;

- our debt level increases our vulnerability to general economic downturns and adverse industry conditions;

- our debt level could limit our flexibility in planning for, or reacting to, changes in our business and in our industry in general;

- our substantial amount of debt and the amount we need to pay to service our debt obligations could place us at a competitive disadvantage compared to our competitors that have less debt; and

- our failure to comply with the financial and other restrictive covenants in our debt instruments which, among other things, require us to maintain specified financial ratios, limit our ability to incur debt, pay dividends and sell assets, could result in an event of default that, if not cured or waived, could cause our lenders to terminate commitments under our debt agreements, declare all amounts, including accrued interest, due and payable, and enforce their rights in respect of collateral.

Our cash interest expense for the year ended December 31, 2013 was $77.9 million. Our debt service for 2014, which represents estimated scheduled cash interest payments and expected principal payments of our long-term debt, is expected to be $70.8 million. See Item 7, Management s Discussion and Analysis of Financial Condition and Results of Operations Liquidity and Capital Resources Liquidity for years beyond 2014.

Additional Borrowings Available Despite our leverage, we and our subsidiaries may be able to incur more indebtedness. This could exacerbate the risks described above, including our ability to service our indebtedness.

We and our subsidiaries may be able to incur substantial additional indebtedness in the future. Although the indenture governing the 2020 Notes contains restrictions on the incurrence of additional indebtedness, such restrictions are subject to a number of qualifications and exceptions, and under certain circumstances indebtedness incurred in compliance with such restrictions could be substantial. For example, although the indenture prohibits us from incurring additional indebtedness unless we satisfy a fixed-charge coverage ratio, which is the ratio of Adjusted EBITDA (as defined therein) to fixed charges (as defined therein), in each case for the most recently ended four fiscal quarters, on a pro forma basis of at least 2.00 to 1, there are a number of permitted exceptions, including among others, an amount of indebtedness under a credit facility up to an amount not to exceed the greater of: i) $2,250.0 million and ii) an amount such that the pro forma net secured leverage ratio shall not exceed 2.50 to 1. To the extent new debt is added to our debt levels, the substantial leverage risks described above would increase.

Restrictive Covenants in Our Debt Instruments Our debt instruments contain a number of restrictive covenants which may limit our ability to finance future operations or capital needs or engage in other business activities that may be in our interest.

The indenture governing the 2020 Notes impose, and the terms of any future indebtedness may impose, operating and other restrictions on us. Such restrictions will affect, and in many respects limit or prohibit, among other things, our ability to take certain actions. See Item 8. Financial Statements and Supplementary Data - Note 10, Long-Term Debt, for further details. The restrictive covenants contained in the indenture governing the 2020 Notes limit our ability, and the ability of our restricted subsidiaries, to, among other things, incur or guarantee additional indebtedness, pay dividends or make other equity distributions or repurchase capital stock, make investments or other restricted payments, create liens, transfer or sell assets, restrict dividends or other payments to us, engage in certain transactions with certain affiliates, and merge or consolidate with other companies or sell substantially all of our assets.

In addition, under the indenture governing the 2020 Notes, if we do not reinvest the net proceeds of our completed divestitures in accordance with the terms of the indenture within 450 days of such divestitures, we will be required to make an offer to purchase all or a portion of the 2020 Notes at a repurchase price equal to 100% of the principal amount plus accrued and unpaid interest. The amount of any such repurchases will depend upon the amount of net proceeds available after reinvestment and our noteholders decision to accept or reject the offer to purchase. We may not have sufficient cash or sources of liquidity to complete such offer to repurchase.

In the event of default under the indenture governing the 2020 Notes, the noteholders could elect to declare the principal amount of all of the notes outstanding, together with accrued and unpaid interest, to be immediately due and payable. If RSGI were unable to repay or otherwise refinance the 2020 Notes when due, our domestic subsidiaries, that guaranteed the 2020 Notes may be required to satisfy those obligations.

Economic Uncertainty Downturns in certain industries and general economic conditions could adversely affect our profitability and liquidity.

In the event another economic downturn or recession or disruption in the capital markets occurs, our results of operations, cash flows and financial position could be materially and adversely affected. Under such circumstances, the demand for our products could decrease, which would adversely affect our results of operations. In addition, our products are used in certain industries, such as the automotive industry. Prolonged downturns or bankruptcies in one or more industries could severely reduce demand for our products. For example, a downturn in the automotive industry, particularly in Europe, may adversely affect the results of operations of our Surface Treatment segment. In addition, a downturn in demand for products containing lithium batteries may adversely affect the results of operations of our Lithium segment. Moreover, if the value of one or more of our businesses deteriorates, we may be required to record additional impairment charges that could adversely affect our results of operations. If we are unable to successfully anticipate or respond to changing economic conditions, our results of operations and financial position may be materially and adversely affected.

Further, another economic downturn or recession or market disruption in the capital and credit markets may adversely impact the value of our pension plan assets, our results of operations, our statement of changes in stockholders equity and our liquidity. For example, we have several pension plans located in Germany, the United Kingdom and the United States. Our funding obligations could change significantly based on the investment performance of the pension plan assets and changes in actuarial assumptions for local statutory funding valuations. Any deterioration of the capital markets or returns available in such markets may negatively impact our pension plan assets and increase our funding obligations for one or more of these plans and negatively impact our liquidity. We cannot predict the impact of this or any further market disruption on our pension funding obligations.

Risks Associated with Acquisitions and Divestitures We may not be able to complete our expected to be closed divestiture of the TiO2 Pigments and Other Businesses or proposed acquisitions, including the expected acquisition of a 49% interest in Talison, nor successfully integrate acquisitions we may undertake in the future.

We may not be able to complete the divestiture of businesses that we consider non-core businesses. For example, we entered into a definitive agreement to sell our TiO2 Pigments and Other Businesses in September 2013. This transaction, which is expected to close during the first half of 2014, is subject, among other things, to the approval of the European Commission. We cannot predict whether the antitrust authorities will approve such transaction.

We may not be able to complete the expected acquisition of a 49% interest in Talison. This transaction, which is expected to close during the first half of 2014, is subject to receipt of the regulatory approvals. We cannot assure that this acquisition will close in a timely manner or at all.

The process of combining or acquiring businesses with Rockwood involves risks. We may face difficulty integrating the new operations, technologies, products and services of future acquisitions or combinations, and may incur unanticipated expenses related to such transactions. The difficulties of combining operations may be magnified by integrating personnel with differing business backgrounds and corporate cultures. Failure to successfully manage and integrate acquisitions with our existing operations could lead to the potential loss of customers of the acquired business, the potential loss of employees who may be vital to the new operations, the potential loss of business opportunities or other adverse consequences that could affect our financial condition and results of operations. Even if integration occurs successfully, failure of any future acquisition or combination to achieve levels of anticipated sales growth, profitability or productivity comparable with those achieved by our existing operations, or otherwise not perform as expected, may adversely impact our financial condition and results of operations. In addition, certain acquisitions may trigger regulations designed to monitor competition and would therefore require regulatory approval. We cannot predict whether such authorities will approve or we would be able to complete any acquisitions we seek to accomplish in the future.

Raw Materials Fluctuations in costs of our raw materials or our access to supplies of our raw materials could adversely affect our results of operations.

In general, raw material costs account for a high percentage of our total costs of products sold. In 2013, raw materials constituted approximately 58% of our cost of products sold and in particular, tin, which is used in our Metal Sulfides business, represented 7% of our cost of products sold. We generally purchase raw materials based on supply agreements linked to market prices and therefore our results of operations are subject to short-term fluctuations in raw materials prices. Any fluctuations in key raw material prices limit our ability to accurately forecast future raw material costs and hence our profitability.

Many of the raw materials we use are commodities, and the price of each can fluctuate widely for a variety of reasons, including changes in availability, major capacity additions or reductions or significant facility operating problems. Historically, there have been some price increases we have not been able to pass through to our customers. This trend may continue in the future.

In addition, each of sodium carbonate and n-butylchloride is (i) a key raw material used to produce lithium products in our Lithium segment, (ii) one of our largest raw materials (in terms of dollars) and (iii) sourced from two suppliers. In each case, if either of our two suppliers is unable to meet its obligations under our present supply agreement or we are unable to enter into new supply arrangements on competitive terms when our existing supply arrangements expire, we may be forced to pay higher prices to obtain these raw materials. In addition, a significant portion of our lithium metal raw material requirements are processed at a single location of a supplier. This supplier experienced production issues in early 2014. Any disruption at this facility could adversely affect our ability to meet market demand for these products, our relationships with our customers and our results of operations.

There are limited sources of certain key raw materials such as lithium brine and cesium. For example, lithium brine is found in only a small number of locations around the world. Furthermore, certain of our raw materials, such as cesium and lithium brine, are sourced from countries where political, economic and social conditions may be subject to instability. In addition, one of our key raw materials, lithium brine, requires processing and a period of gestation before it can be used to produce lithium compounds. In the event there is an increase in market demand for lithium products, or of unfavorable weather conditions at the lithium ponds, as we experienced in Chile in in early 2013, we may not be able to respond to such market demand on a timely basis. In addition, we cannot predict whether we will obtain additional rights to extract lithium resources or lithium brine. Any interruption of supply or any price increase of raw materials could result in our inability to meet demand for our products, loss of customer goodwill and higher costs of producing our products.

Dividends and Stock Repurchases There can be no guarantee that we will continue to declare dividends or repurchase our stock.

In February 2013, our board of directors increased the quarterly cash dividend to $0.40 per share, and, in August 2013, our board of directors increased our quarterly cash dividend again to $0.45 per share. In November 2013, our board of directors authorized a new share repurchase program for shares of common stock up to $500 million expected to be completed over two years. Any determination to continue to declare cash dividends on our common stock or to repurchase our common stock will be based primarily upon our financial condition, results of operations and capital requirements, including for capital expenditures and acquisitions, the price of our common stock in the

case of the repurchase program, and our board of directors continuing determination that the repurchase program and the declaration of the dividends are in the best interests of our stockholders and are in compliance with all laws and agreements applicable to the Company. For example, the indenture governing the 2020 Notes limits the ability of RSGI to make payments to Rockwood for regular cash quarterly dividends on our common stock, subject to certain exceptions, including, among others, RSGI s ability to make payments to Rockwood in an amount not to exceed $0.45 per share per quarter. Similarly, the indenture governing the 2020 Notes limits the ability of RSGI to make payments to Rockwood to repurchase shares of our common stock, subject to certain exceptions, including, among others, RSGI s ability to make payments to Rockwood in an amount not to exceed $250.0 million in any calendar year. There can be no assurance that we will complete the amount of purchases over the timeframe and in the amount announced. In the event we do not declare a quarterly dividend or we discontinue share repurchases, our stock price could be adversely affected.

Currency Fluctuations Because a significant portion of our operations is conducted in foreign currencies, fluctuations in currency exchange rates may adversely impact our financial condition and results of operations and may affect the comparability of our results between financial periods.

Our operations are conducted by subsidiaries in many countries. The results of their operations and financial condition are reported in their functional currency, generally their local currency, and are then translated into U.S. dollars at the applicable exchange rates for inclusion in our consolidated financial statements. The exchange rates between some of these currencies and the dollar in recent years have fluctuated significantly and may continue to do so in the future. A significant portion of our net sales and cost of products sold is denominated in Euros. Approximately 50% of our 2013 net sales were derived from subsidiaries whose local currency is the Euro. This increases the impact of the fluctuation of the Euro against the U.S. dollar.

We also incur currency transaction risk whenever we enter into either a purchase or sale transaction using a currency other than the local currency of the transacting entity. We may not be able to effectively manage our currency translation and/or transaction risks, and as a result, volatility in currency exchange rates may have a material adverse effect on the carrying value of our debt and results of operations.

Regulation of Our Raw Materials, Products and Facilities Our business could be adversely affected by regulation to which our raw materials, products and facilities are subject.

Some of the raw materials we handle, and our products and facilities, are subject to government regulation. These regulations affect the manufacturing processes, handling, uses and applications of our products. In addition, some of our products contain raw materials, such as lithium hydride, tetrahydrofuran, antimony sulfide, copper compounds, chromic acid, silica and zinc chromate that are deemed hazardous materials in certain situations. The use and handling of these materials is regulated and some of these regulations require product registrations, which also are subject to renewal and potential revocation. These regulations and changes to the current regulatory framework under which we operate may affect our ability to market certain chemicals we produce. In addition, some of these products, such as lithium metal, have significant restrictions on our ability to transport them via certain types of carriers.

There is also a risk that key raw materials or one or more of our products may be found to have, or be recharacterized as having, a toxicological or health-related impact on the environment or on our customers or employees. If such a finding or recharacterization occurs, the relevant raw materials or products, including products of our customers incorporating our products, may be recalled or banned or we may incur increased costs in order to comply with new regulatory requirements. Change in regulations, or their interpretation, may also affect the marketability of certain of our products. We cannot predict how these and other findings from regulatory agencies may affect our cash flows or results of operations.

Manufacturing Hazards Hazards associated with chemical manufacturing could adversely affect our results of operations.

Due to the nature of our business and those of some of our key suppliers, we are exposed to the hazards associated with chemical manufacturing and the related storage and transportation of raw materials, products and wastes in our manufacturing facilities or our distribution centers and those of our suppliers, such as fires, explosions and accidents. In addition, our manufacturing facilities and distribution centers, and those of our suppliers, are subject to natural disasters, such as earthquakes, tornadoes, hurricanes and typhoons. These hazards and natural disasters could lead to an interruption or suspension of operations and have an adverse effect on the productivity and profitability of a particular manufacturing facility or on our company as a whole. Other hazards include piping and storage tank leaks and ruptures, mechanical failure, employee exposure to hazardous substances, chemical spills and other discharges or releases of toxic or hazardous substances or gases. These hazards may cause personal injury and loss of life, damage to property and contamination of the environment, which could lead to government fines or work stoppage injunctions and lawsuits by injured persons. There are some products that we manufacture at only one location, such as zirconium and cesium-based products. Any such incidents at this location could adversely affect our ability to supply such products and our results of operations.

Energy Costs Fluctuations in energy costs could have an adverse effect on our results of operations.

Energy purchases in 2013 constituted approximately 3% of Rockwood s cost of products sold. Fluctuations in the price of energy limit our ability to accurately forecast future energy costs and consequently our profitability. Rising energy costs may increase our raw material costs and negatively impact our customers and the demand for our products. These risks will be heightened if our customers or production facilities are in locations experiencing severe energy shortages. For example, our lithium facility in Chile has experienced a shortage of natural gas in the past due to the Argentine government s decision to ration its supply of natural gas to Chile. If energy prices fluctuate significantly, or we experience severe energy shortages, our business or results of operations may be adversely affected.

Environmental, Health and Safety Regulations Compliance with extensive environmental, health and safety laws could require material expenditures or changes in our operations.

Our operations are subject to extensive environmental, health and safety laws and regulations at national, international and local levels in numerous jurisdictions. In addition, our production facilities and a number of our distribution centers require numerous operating permits that are subject to renewal. Due to the nature of these requirements and changes in our operations, our operations may exceed limits under permits or we may not have the proper permits to operate our operations. In addition, the nature of the chemicals industry exposes us to risks of liability under these laws and regulations due to the production, storage, transportation, disposal and sale of chemicals and materials that can cause contamination or personal injury if released into the environment. In 2013, 2012 and 2011, our capital expenditures for safety, health and environmental matters (SHE) for continuing operations were $6.0 million, $23.1 million and $13.9 million, respectively, excluding costs to maintain and repair pollution control equipment. For 2014, we estimate capital expenditures for continuing operations for compliance with SHE laws for continuing operations to be at similar levels as 2013.

Compliance with environmental laws generally increases the costs of manufacturing, the cost of registration/approval requirements, the costs of transportation and storage of raw materials and finished products, as well as the costs of the storage and disposal of wastes, and could have a material adverse effect on our results of operations. We may incur substantial costs, including fines, damages, criminal or civil sanctions and remediation costs, or experience interruptions in our operations, for violations arising under these laws or permit requirements. Furthermore, environmental laws are subject to change and have tended to become stricter over time. Such changes in environmental laws or their interpretation, or the enactment of new environmental laws, could result in materially increased capital expenditures and compliance costs. For example, proposed regulation related to greenhouse gases and carbon dioxide emissions, such as the cap and trade requirements, and potential revisions to the Toxic Control Substances Act, could materially and adversely impact our results of operations.

In addition, the discovery of contamination arising from historical industrial operations at some of our former and present properties has exposed us, and in the future may continue to expose us, to cleanup obligations and other damages. For example, soil and groundwater contamination is known to exist at several of our facilities. At December 31, 2013, the potential range of exposure for remediation liabilities (excluding reclamation obligations) is from $26.7 million and $46.9 million.

Indemnities We may be subject to indemnity claims and liable for other payments relating to properties or businesses we have divested.

In connection with the sale of certain properties and businesses, we have agreed to indemnify the purchasers for certain types of matters, such as certain breaches of representations and warranties, taxes and certain environmental matters.

With respect to environmental matters, the discovery of contamination arising from properties that we have divested may expose us to indemnity obligations under the sale agreements with the buyers of such properties or cleanup obligations and other damages under applicable environmental laws. For example, we agreed to indemnify the buyer of our former plastic compounding business for certain environmental liabilities related to such business. In addition, we agreed to indemnify the buyer of our former Clay-based Additives business for certain pre-closing environmental matters for a period of fifteen years after the closing related to one of the businesses sites, subject to certain deductibles and cost sharing. In connection with the sale of the TiO2 Pigments and Other Businesses, we also agreed to indemnify the purchaser for pre-closing environmental matters at certain sites; retain certain other operating sites and lease them to the purchaser for a period of up to ten years; and indemnify the purchaser for certain off-site environmental matters prior to the closing.

In addition to the environmental matters described above in connection with the sale of the TiO2 Pigments and Other Businesses, prior to the closing, we agreed to make all payments in respect of the ongoing construction of a production facility in Augusta, Georgia in accordance with the construction project and to use commercially reasonable efforts to ensure that construction continues in accordance with certain benchmarks. In connection with this project, we agreed to certain performance objectives upon the commencement of production at the Augusta, Georgia plant upon completion in early 2015 and agreed to indemnify the purchaser for any capital costs incurred by the purchaser to attain those objectives in excess of certain amounts. Construction of a large chemical operation is subject to risk and uncertainties, including the ability to complete the project on a timely basis and in accordance with the estimated budget for such project. In addition, commencement of production also requires start-up, commissioning and certification of product quality, which all may impact the timely completion and cost of such project.

We may not have insurance coverage for such indemnity obligations or cash flows to make such indemnity or other payments. Further, we cannot predict the nature of and the amount of any indemnity or other obligations we may have to the applicable purchaser. Such payments may be costly and may adversely affect our financial condition and results of operations.

Product Liability Due to the nature of our business and products, we may be liable for damages arising out of product liability claims.

The sale of our products involves the risk of product liability claims. Also, because many of our products are integrated into our customers products, we may be requested to participate in, or fund in whole or in part the costs of, a product recall conducted by a customer. For example, some of our businesses, including those within our Surface Treatment segment, supply products to customers in the automotive industry. In the event one of these customers conducts a product recall that it believes is related to one of our products, we may be asked to participate in or fund in whole or in part such a recall.

Our customers often require our subsidiaries to represent that our products conform to certain product specifications provided by our customers. Any failure to comply with such specifications could result in claims or legal action against our subsidiaries.

We may be subject to future claims with regard to potential lawsuits and we may not be able to avoid significant product liability exposure. A successful product liability claim or series of claims against us for which we are not otherwise indemnified or insured could materially increase our operating costs or prevent such operating subsidiary from satisfying its financial obligations. We may not have sufficient cash flow from operations or assets to pay a judgment resulting from a product liability claim or product recall, if any, for which there is no or inadequate insurance coverage. Any such judgment or product recall could materially increase our operating costs or prevent such operating subsidiary from satisfying its financial obligations and adversely impact our results of operations or financial condition.

Product Liability Due to the nature of our business and products, we may be liable for damages arising out of certain indemnity claims.

We may be subject to indemnity claims for product liability lawsuits relating to products we have sold. For example, our Surface Treatment segment s subsidiary that formerly manufactured and distributed sealants for insulating glass has been named as a defendant in several lawsuits relating to alleged defective manufacturing of those products. The plaintiffs in these actions are claiming damages of approximately 30.0 million including interest. This subsidiary may be required to pay indemnity claims, mainly based upon re-glazing costs. Our insurance may not cover such claims and, in such a case, our subsidiary may not have sufficient cash flow from operations to pay these claims. Indemnity claims related to these or other matters could adversely affect our financial condition or results of operations.

FDA Regulation Some of our manufacturing processes and facilities and pharmaceutical customers are subject to regulation by the FDA or similar foreign agencies. These requirements could adversely affect our results of operations.

Some of our manufacturing processes and facilities and pharmaceutical customers are subject to regulation by the FDA or similar foreign agencies. Regulatory requirements of the FDA are complex. Any failure to comply with them could subject us and/or our customers to fines, injunctions, civil penalties, lawsuits, recall or seizure of products, total or partial suspension of production, denial of government approvals, withdrawal of marketing approvals and criminal prosecution. Any of these actions could adversely impact our net sales, undermine goodwill established with our customers, damage commercial prospects for our products and materially and adversely affect our results of operations.

In addition, certain products we produce, such as certain lithium compounds manufactured by our Lithium segment used in pharmaceutical intermediaries are subject to FDA regulation. The FDA may take three years or longer to grant premarket approval of our customers new products, if at all. Further, our competitors may seek pre-market approval for products that compete with our products.

Competition Our industry is highly competitive. The end-use markets in which we compete are also highly competitive. This competition may adversely affect our results of operations.

We face significant competition from major international producers as well as smaller regional competitors. Our most significant competitors include major chemicals and materials manufacturers and diversified companies, a number of which have revenues and capital resources exceeding ours. In addition, our products, such as lithium, are facing increasing competition from market participants in China.

Within the end-use markets in which we compete, competition between products is intense. Substitute products also exist for many of our products. Therefore, we face substantial risk that certain events, such as new product development by our competitors, changing customer needs, production advances for competing products, price changes in raw materials and products, our failure to secure patents or the expiration of patents, could result in declining demand for our products as our customers switch to substitute products or undertake manufacturing of such products on their own. If we are unable to develop, produce or market our products to effectively compete against our competitors, our results of operations may materially suffer.

We believe that our customers are increasingly looking for strong, long-term relationships with a few key suppliers that help them improve product performance, reduce costs, or support new product development. To satisfy these growing customer requirements, our competitors have been consolidating within product lines through mergers and acquisitions. We may also need to invest and spend more on research and development and marketing costs to strengthen existing customer relationships, as well as attract new customers. Our indebtedness could limit our flexibility to react to these industry trends and our ability to remain competitive.

Product Innovation If we are not able to continue our technological innovation and successful commercial introduction of new products, our profitability could be adversely affected.

Our industries and the end-use markets into which we sell our products experience periodic technological change and product improvement. Manufacturers periodically introduce new generations of products or require new technological capacity to develop customized products. Our future growth will depend on our ability to gauge the direction of the commercial and technological progress in all key end-use markets and

upon our ability to fund and successfully develop, manufacture and market products in such changing end-use markets. For example, the market for advanced battery storage devices that use our lithium products is rapidly changing. We will have to continue to identify, develop, market and in certain cases, secure regulatory approval for innovative products on a timely basis to replace or enhance existing products in order to maintain our profit margins and our competitive position. We may not be successful in developing new products and/or technology, either alone or with third parties, or licensing intellectual property rights from third parties on a commercially competitive basis. Our new products may not be accepted by our customers or may fail to receive regulatory approval. If we fail to keep pace with the evolving technological innovations in our end-use markets on a competitive basis, our business, financial condition and results of operations could be adversely affected.

Dependence on Intellectual Property If our intellectual property were copied by competitors, or if they were to develop similar intellectual property independently, our results of operations could be negatively affected.

Our success depends to a significant degree upon our ability to protect and preserve our intellectual property rights, which rights we own or use pursuant to licenses granted to us by third parties. The confidentiality and patent assignment agreements we enter into with most of our key employees and third parties to protect the confidentiality, ownership and use of intellectual property may be breached, may not be enforceable, or may provide for joint ownership or ownership by a third party. In addition, we may not have adequate remedies for a breach by the other party, which could adversely affect our intellectual property rights. The use of our intellectual property rights or intellectual property similar to ours by others or our failure to protect such rights could reduce or eliminate any competitive advantage we have developed, adversely affecting our net sales. If we must sue to protect, defend or enforce our intellectual property rights, any suits or proceedings could result in significant costs and diversion of company resources and management attention, and we may not prevail in such action. We are periodically involved in actions related to misappropriation of our intellectual property by former employees. In addition, when our patents expire, competitors or new market entrants may manufacture products substantially similar to our products previously protected by a patent.

We conduct research and development activities with third parties and license certain intellectual property rights from third parties and we plan to continue to do so in the future. We endeavor to license or otherwise obtain intellectual property rights on terms favorable to us. However, we may not be able to license or otherwise obtain intellectual property rights on such terms or at all. Our inability to license or otherwise obtain such intellectual property rights could have a material adverse effect on our ability to create a competitive advantage and create innovative solutions for our customers, which will adversely affect our net sales and our relationships with our customers.

The steps we take to protect our intellectual property may not provide us with any competitive advantage and may be challenged by third parties. We have been subject to oppositions of our patents and trademarks by third parties before regulatory bodies in certain jurisdictions. The cost to defend our intellectual property may be substantial and our failure to defend these patents or registered trademarks may limit our ability to protect the intellectual property rights that these applications were intended to cover. In addition, a failure to obtain and defend our trademark registrations may impede our marketing and branding efforts and competitive position. A failure to protect our intellectual property rights could have a material adverse effect on demand for our products and our net sales.

Risk of Intellectual Property Litigation Our products or processes may infringe the intellectual property rights of others, which may cause us to pay unexpected litigation costs or damages or prevent us from selling our products.

Although it is our intention to avoid infringing or otherwise violating the intellectual property rights of others, our processes and products may infringe or otherwise violate the intellectual property rights of others. We may be subject to legal proceedings and claims, including claims of alleged infringement by us or our licensees of the patents, trademarks and other intellectual property rights of third parties. Intellectual property litigation is expensive and time-consuming, regardless of the merits of any claim, and could divert our management s attention from operating our businesses. If we were to discover or be notified that our processes or products potentially infringe or otherwise violate the intellectual property rights of others, we may need to obtain licenses from these parties or substantially re-engineer our products and processes in order to avoid infringement. We might not be able to obtain the necessary licenses on acceptable terms, or at all, or be able to re-engineer our products successfully. Moreover, if we are sued for infringement and lose the suit, we could be required to pay substantial damages and/or be enjoined from using or selling the infringing products or technology. Any of the foregoing could cause us to incur significant costs and prevent us from selling our products.

International Operations As a global business, we are exposed to local business risks in different countries which could have a material adverse effect on our financial condition or results of operations and the value of our common stock.

We have significant operations in many countries, including manufacturing facilities, research and development facilities, sales personnel and customer support operations. Currently, we operate, or others operate on our behalf, facilities in countries such as Brazil, Chile, China, India, Mexico, Singapore, South Africa, Taiwan and Turkey. Of our total net sales in 2013 of $1,377.8 million, approximately 79% were generated by shipments to customers in countries outside North America. Our operations are affected directly and indirectly by global regulatory, economic and political conditions, including:

- new and different legal and regulatory requirements in local jurisdictions;

- managing and obtaining support and distribution for local operations;

- increased costs of, and decreased availability of raw materials, transportation or shipping;

- credit risk and financial conditions of local customers and distributors;

- potential difficulties in protecting intellectual property;

- risk of nationalization of private enterprises by foreign governments;

- potential imposition of restrictions on investments;

- potentially adverse tax consequences, including imposition or increase in withholding and other taxes on remittances, repatriation or other payments by subsidiaries;

- capital controls; and

- local political, economic and social conditions, including the possibility of hyperinflationary conditions and political instability in certain countries.

In addition, our facilities may be targets of terrorist activities that could result in full or partial disruption of the activities of such facilities. We may not succeed in developing and implementing policies and strategies to counter the foregoing factors effectively in each location where we do business. Our failure to do so could limit our ability to sell products, compete or receive payments for products sold in such locations.

Furthermore, our subsidiaries are subject to rules and regulations related to anti-bribery prohibitions of the U.S. and other countries and export controls and economic embargoes, violations of which may carry substantial penalties. For example, export control and economic embargo regulations limit the ability of our subsidiaries to market, sell, distribute or otherwise transfer their products or technology to prohibited countries or persons. Failure to comply with these regulations could subject our subsidiaries to fines, enforcement actions and/or have an adverse effect on our reputation and the value of our common stock. In addition, we are subject to the Dodd-Frank Wall Street Reform and Consumer Protection Act and the Health Care and Education Reconciliation Act of 2010 and the cost of compliance may adversely impact our results of operations.

Information Security The security of our information technology systems could be compromised, which could adversely affect our ability to operate.

We depend on information technology to enable us to operate efficiently and interface with customers, as well as maintain financial accuracy and efficiency. Our information technology capabilities are delivered through a combination of internal and outsourced service providers. If we do not allocate and effectively manage the resources necessary to build and sustain the proper technology infrastructure, we could be subject to transaction errors, processing inefficiencies, the loss of customers, business disruptions, or the loss of or damage to our intellectual property through security breach. As with all large systems, our information systems could be penetrated by outside parties intent on extracting information, corrupting information, or disrupting business processes. Our systems have in the past been and likely will in the future be subject to hacking attempts. Unauthorized access could disrupt our business operations and could result in the loss of assets and have a material adverse effect on our business, financial condition, or results of operations.

Our business involves the use, storage, and transmission of information about our employees, vendors and customers. The protection of such information, as well as our information, is critical to us. The regulatory environment surrounding information security and privacy is increasingly demanding, with the frequent imposition of new and constantly changing requirements. Our subsidiaries also, from time to time, export sensitive customer data and technical information to recipients outside the U.S. Breaches of our security measures or the accidental loss, inadvertent disclosure, or unapproved dissemination of proprietary information or sensitive or confidential data about us or our customers, including the potential loss or disclosure of such information or data as a result of fraud or other forms of deception, could expose us, our customers, or the individuals affected to a risk of loss or misuse of this information, could result in litigation and potential liability for us, damage our reputation, or otherwise harm our business, financial condition or results of operations.

Retention of Key Personnel If we lose certain key personnel or are unable to hire additional qualified personnel, we may not be able to execute our business strategy.

Our success depends, in part, upon the continued services of our highly skilled personnel involved in management, research, production, sales and distribution, and, in particular, upon the efforts and abilities of our executive officers and key employees. We may not be able to retain such key personnel on acceptable terms or at all. Furthermore, if we lose the service of any executive officers or key employees, we may not be able to execute our business strategy. We do not have key-person life insurance covering any of our employees.

Relations with Employees We are subject to stringent labor and employment laws in certain jurisdictions in which we operate, and our relationship with our employees could deteriorate, which could adversely impact our operations.

A majority of our full-time employees are employed outside the United States, particularly in Germany where many of our businesses are located. In certain jurisdictions where we operate, particularly in Germany, labor and employment laws are relatively stringent and, in many cases, grant significant job protection to certain employees, including rights on termination of employment. In addition, in certain countries where we operate, including Germany, our employees are members of unions or are represented by a works council as required by law. We are often required to consult and seek the consent or advice of these unions and/or respective works councils. These regulations and laws coupled with the requirement to consult with the relevant unions or works councils could significantly limit our flexibility in managing costs and responding to market changes.

Furthermore, with respect to our employees that are subject to collective bargaining arrangements or similar arrangements (approximately one-fourth of our full-time employees as of February 1, 2014), we may not be able to negotiate labor agreements on satisfactory terms and actions by our employees may disrupt our business. In addition, in order to close any facilities in which a union is organized, we have to negotiate a termination of any collective bargaining agreement and any severance obligations with such union. If any of our workers were to engage in a strike, work stoppage, sabotage or other slowdown, we could experience a significant disruption of our operations and/or higher ongoing labor costs. In addition, if our other employees were to become unionized, we could experience a significant disruption of our operations and/or higher ongoing labor costs.

Tax Liabilities If GEA Group Aktiengesellschaft (formerly known as mg technologies ag) or Degussa UK Holdings, Ltd. fail to satisfy their contractual obligations, we may be subject to increased tax exposure resulting from pre-acquisition periods.

Under the terms of certain purchase agreements, third party sellers have agreed to substantially indemnify us for tax liabilities pertaining to the pre-acquisition periods. To the extent such companies fail to indemnify or satisfy their obligations, or if any amount is not covered by the terms of the indemnity, earnings could be negatively impacted in future periods through increased tax expense.

Net Loss We have experienced losses in the past and may experience losses in the future and cannot be certain that our net operating loss carryforwards will continue to be available to offset our tax liability.

We have incurred net losses in the past and we may incur net losses in the future. As of December 31, 2013, we had deferred tax assets of $155.8 million related to worldwide net operating and capital loss carryforwards. Additionally, at December 31, 2013, we had a total valuation allowance of $18.5 million related to net operating loss deferred tax assets and deferred tax assets related to cumulative temporary differences. If our operating performance deteriorates in the future in certain tax jurisdictions, we may be unable to realize these net operating loss carryforwards and we may be required to record an additional valuation allowance.

Anticipated Capital Expenditures Our required capital expenditures may exceed our estimates.

Our capital expenditures for continuing operations, net of government grants, for the year ended December 31, 2013, 2012 and 2011 were $172.3 million, $140.8 million and $112.0 million, respectively, which consisted of expenditures to maintain and improve existing equipment and substantial investments in new equipment. For example, we are working on new production capacity for lithium carbonate at our facility at La Negra, Chile. We expect to finish mechanical completion in the second quarter of 2014 and commence production thereafter. Commencement of production requires start-up, commission and certification of product quality by our customers, which may impact the expected timing of sales of product from such facility. Construction of large chemical operations is subject to numerous risks and uncertainties, including, among others, the ability to complete the project on a timely basis and in accordance with the estimated budget for such project and our ability to estimate future demand for our products. We cannot guarantee that we will be able to obtain rights to extract amounts of lithium in addition to those to which we are entitled to under our existing contract with the Chilean government or additional rights for lithium in other locations.

Capital expenditures for continuing operations for 2014 are expected to be at similar levels as 2013. Future capital expenditures may be significantly higher, depending on the investment requirements of each of our business lines, and may also vary substantially if we are required to undertake actions to compete with new technologies in our industry. We may not have the capital necessary to undertake these capital investments. If we are unable to do so, we may not be able to effectively compete in some of our markets.

Conflict Minerals New regulations related to conflict minerals may increase our costs and adversely affect our business.

The SEC has promulgated final rules pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act regarding disclosure of the use of tin, tantalum, tungsten and gold, known as conflict minerals, included in components of products either manufactured by public companies or for which public companies have contracted to manufacture. These new rules require due diligence to determine whether such

minerals originated from the Democratic Republic of Congo (the DRC) or an adjoining country and whether such minerals helped finance the armed conflict in the DRC. The first conflict minerals report required by the new rules is due by May 31, 2014 and annually thereafter. At this time, we have determined that certain of our products contain the specified minerals, and we have developed a process to enable us to identify where such minerals originated. We expect to incur costs associated with complying with these disclosure requirements, including costs related to determining the sources of the specified minerals used in our products. In addition, the implementation of these rules could adversely affect the sourcing, supply and pricing of materials used in our products. Our customers may require our products be free of conflict minerals, and our revenues and margins may be harmed if we are unable to provide assurances to our customers that our products are DRC conflict free (generally, the product does not contain conflict minerals originating in the DRC or an adjoining country that directly or indirectly finance or benefit specified armed groups) or to procure conflict free minerals at a reasonable price, or at all, or are unable to pass through any increased costs associated with meeting these demands. We also may face reputational challenges if the due diligence procedures we implement do not enable us to verify the origins of all conflict minerals or to determine that any conflict minerals used in products we manufacture or in products manufactured by others for us are DRC conflict-free.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

We have global operations, serving customers worldwide. To service our customers efficiently, we maintain 33 operating manufacturing facilities in 17 countries for our continuing operations with a strategy of global, regional and local manufacturing to optimize our service offering and minimize production cost to our customers. In addition, our discontinued operations operate 26 facilities in 7 countries. We believe these facilities are suitable and adequate for their intended use. The table below presents summary information with respect to these operating facilities:

Segment in the case of Continuing Operations (or business in the case of Discontinued Operations)	Country	Locations	Leased/Owned	Major Applications/Industry
Continuing Operations:				
Lithium				
	Chile	La Negra	Owned	Lithium carbonate and lithium chloride
		Salar de Atacama (1)	Owned	Lithium brine and potash
	Germany	Langelsheim (2)	Owned	Butyllithium, lithium chloride, specialty products, lithium hydrides, cesium, and special metals
	Taiwan	Taichung	Owned	Butyllithium
	India	Gujarat	Leased	Butyllithium
	United States	Kings Mountain, NC	Owned	Technical and battery grade lithium hydroxide
		New Johnsonville, TN	Owned	Butyllithium and specialty products
		Silver Peak, NV	Owned	Lithium-carbonate
Surface Treatment				
	Australia	Bayswater North	Owned	General Industry, aerospace, and other pre-treatment technologies
	Brazil	Jundiai/São Paulo	Owned	Automotive and other pre-treatment technologies
	China	Changchun (JV)	Leased	Automotive and other pre-treatment technologies