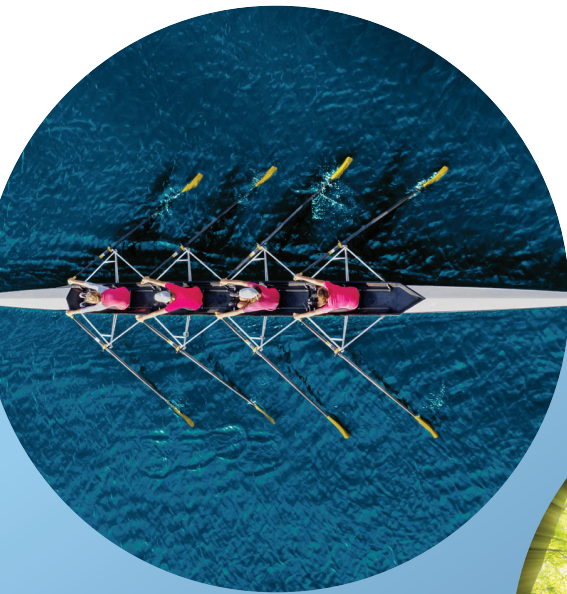




balchem[®]
Solve Today. Shape Tomorrow.

2022 Annual Report



Making the World a **Healthier Place**

COMPANY PROFILE

Balchem is committed to making the world a healthier place by delivering trusted, innovative, and science-based solutions for the health and nutritional needs of the world. Balchem employs approximately 1,400 employees worldwide who provide the service, quality, and technology that enables our customers to win with their customers. We have built a reputation for delivering results to all of our stakeholders. Founded in 1967, Balchem, a Maryland corporation, became a publicly-traded company in 1970 and is listed on Nasdaq under the symbol "BCPC." Our corporate headquarters is located in Montvale, New Jersey, and we have a broad network of sales offices, manufacturing sites, and R&D centers, primarily located in the U.S. and Europe.

The Company consists of three business segments: Human Nutrition and Health, Animal Nutrition and Health, and Specialty Products.

Balchem solves today, shapes tomorrow.



Human Nutrition and Health

Balchem Human Nutrition and Health is a global leader in the essential nutrient choline, vitamin K2, chelated minerals, and microencapsulation technologies with strong positions in powder, flavor and cereal system formulation. Food or beverage, supplement or pharmaceutical, our Human Nutrition and Health business segment provides ready-made and custom nutrients, vitamins, ingredients, systems, and products that enable our customers to create better finished goods that improve all aspects of life. As the human nutrition space continues to evolve, our capabilities grow, allowing us to deliver scientifically proven health benefits and fantastic taste in applications from infant formulas to performance shakes and functional foods.



Animal Nutrition and Health

Balchem Animal Nutrition and Health is a global leader in choline production, nutrient encapsulation, chelated minerals, and functional ingredients. With a growing portfolio of products and a dedication to innovation and industry sustainability, Balchem Animal Nutrition and Health is leading the charge to meet the nutritional needs of ruminants, swine, poultry, and companion animals.



Specialty Products

Our Specialty Products business segment specializes in re-packaging and worldwide distribution of performance gases, for use in the sterilization of medical devices, fumigation of nuts and spices, refrigeration, metal hardening, and other industrial applications. We have the packaging and distribution know-how to ensure the safe delivery of these products in returnable, reusable, environmentally safe containers. Our Plant Nutrition business unit, included in Specialty Products, provides highly bioavailable foliar applied chelated minerals and other specialty micro-nutrients under the trade name Metalosate® to the agricultural market.

LETTER TO SHAREHOLDERS



Dear Fellow Shareholders:

As I sit here in the early part of 2023, reflecting back on the Company's performance and progress in 2022, we have much to be proud of relative to Balchem's accomplishments. 2022 was another year of extraordinary challenges and volatility in the global business environment within which we operate. After three consecutive years of unprecedented market conditions, the "new normal" has shaped up to be an environment in which change should be expected and the best companies have business models that include a healthy ability to be nimble and flexible.

Balchem's ability to be nimble and flexible enabled us to maneuver our way through all of the headwinds we faced throughout the year to deliver yet another year of record top and bottom-line financial performance, while continuing to make good progress on our strategic growth initiatives.

In 2022, we delivered record Sales of \$942 million, an increase of 18 percent compared to prior year, with record sales achieved in all three segments: Human Nutrition & Health, Animal Nutrition & Health, and Specialty Products. We also delivered record Adjusted Net Earnings of \$131 million, an increase of \$14 million or 12 percent from prior year, resulting in record Adjusted Earnings per share of \$4.03. Adjusted EBITDA of \$216 million, an increase of \$26 million or 14 percent from the prior year, was also a record. In addition, we generated solid Free Cash Flow of \$138 million in 2022, while investing \$39 million in capital projects to support our continued growth. We are particularly proud of the fact that 2022 was our 13th consecutive year of Sales and Adjusted EPS growth!

While delivering record financial results, we continued to innovate and advance the science behind our key brands like VitaCholine®, Albion® Minerals, K2Vital®, OptiMSM®, ReaShure®, AminoShure®, KeyShure®, PetShure®, and Metalosate®. Approximately 28% of

our sales in 2022 came from products introduced to the market within the last five years, a healthy sign of the vitality of our product portfolio and the number of new solutions we have brought to our customers. Several important new studies supporting the science behind the supplementation of Choline, Minerals, and Vitamin K2 were published or completed in 2022 that augment existing science and bring new science to light that ultimately will support and strengthen our efforts to drive increased market penetration of these important nutrients.

We also acquired Kappa Bioscience AS, a leading science-based manufacturer of specialty vitamin K2 headquartered in Oslo Norway, and Bergstrom Nutrition, a leading science-based manufacturer of methylsulfonylmethane, or MSM, headquartered in Vancouver, Washington. With these acquisitions, Balchem continues to expand its science-based health and nutrition portfolio while providing a broader nutritional platform that will help our customers improve their nutritional and health solutions.

Additionally, we made important new investments in our manufacturing operations in 2022, resulting in additional capacity for our human nutrition, animal nutrition, and plant nutrition businesses. Of particular note was the expansion of our international



manufacturing capabilities with the addition of human encapsulation and plant nutrition operations in Europe, which should enable accelerated growth in the region. All of these new investments will help support our continued organic growth as we further penetrate the markets with our product offerings.

Sustainability remained a key focus through the year as well, culminating in the recent publication of our 2022 Sustainability Report, which captures the Company's commitment to managing our Environmental, Social and Governance (ESG) performance. Balchem's sustainability initiatives are fully integrated into our business strategy and are critical to our vision of making the world a healthier place. We took meaningful steps toward advancing diversity, equity, inclusion, and belonging at Balchem, and remain committed to fostering a diverse and inclusive culture in which everyone feels welcomed, valued, and appreciated, while inspiring our external stakeholders to share our vision. Our Sustainability Report demonstrates the Company's continuing promise to provide our employees, customers, shareholders and the communities within which we operate with information on Balchem's sustainability initiatives and includes our progress on our 2030 goals and strategies for both emissions and water usage reduction. In 2022, we exceeded our 2030 greenhouse emissions reduction goal and achieved a combined scope 1 and scope 2 greenhouse gas reduction of 27%. This puts us in a position to execute on our strategic growth plans and achieve our 2030 25% absolute reduction target. Additionally, Balchem consumed slightly less than 4 million cubic meters of water in 2022, a level 1% below our 2020 baseline, and

5% below our 2021 results. As we work to implement intensive water reuse and recycling projects, we are also implementing other efficiency improvements. We are excited to see a trend of improvement in our absolute water usage result from these initiatives. The combination of these planned efficiencies and significant changes in our use of process water will ensure that we achieve our 2030 goal.

In 2022, Balchem was named one of America's Most Responsible Companies by Newsweek magazine for the third consecutive year. This list, compiled by Newsweek in partnership with Statista Inc., recognizes the most responsible companies in the U.S. across a variety of industries. We are proud of our efforts and continue to take many other important steps toward our continuous improvement journey relative to our corporate social responsibilities and pleased with this recognition by Newsweek.

As I look forward to 2023 and beyond, I believe we are well positioned to drive continued growth and progress on our strategic growth initiatives while nimbly and flexibly managing through the new challenges we will undoubtedly face within this dynamic global market environment. Thank you again to all of our stakeholders for your contributions and continued support.

Sincerely,

Theodore L. "Ted" Harris

Chairman, President and Chief Executive Officer

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2022

OR

- TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _____ to _____

Commission file number: 1-13648

Balchem Corporation

(Exact name of Registrant as specified in its charter)

Maryland

13-2578432

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification Number)

5 Paragon Drive, Montvale, NJ 07645

(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (845) 326-5600

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

Title of each class	Trading symbol	Name of each exchange on which registered
Common Stock, par value \$.06-2/3 per share	BCPC	The Nasdaq Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark whether the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes No

Indicate by check mark whether the Registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes No

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 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 No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes No

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

(Check one): Large accelerated filer Accelerated filer
Non-accelerated filer Smaller reporting company Emerging growth company

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

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

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

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

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

The aggregate market value of the common stock, par value \$.06-2/3 per share (the “Common Stock”), issued and outstanding and held by non-affiliates of the Registrant, based upon the closing price for the Common Stock on the NASDAQ Stock Market LLC on June 30, 2022 was approximately \$4,133,000,000. For purposes of this calculation, shares of the Registrant held by directors and officers of the Registrant and under the Registrant’s 401(k)/profit sharing plan have been excluded.

The number of shares outstanding of Common Stock was 32,169,447 as of February 10, 2023.

DOCUMENTS INCORPORATED BY REFERENCE

Selected portions of the Registrant’s proxy statement for its 2023 Annual Meeting of Shareholders (the “2023 Proxy Statement”) to be filed with the Securities and Exchange Commission pursuant to Regulation 14A within 120 days after Registrant’s fiscal year-end of December 31, 2022 are incorporated by reference in Part III of this Annual Report on Form 10-K to the extent stated therein.

Cautionary Statement Regarding Forward-Looking Statements

Certain statements in this Annual Report on Form 10-K, other than purely historical information, are “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements are not statements of historical facts, but rather reflect our current expectations or beliefs concerning future events and results. We generally use the words “believe,” “expect,” “intend,” “plan,” “anticipate,” “likely,” “will,” “would,” “will be,” “will continue,” “will likely result,” “estimate,” “project,” “forecast,” “outlook,” “strategy,” “future,” “opportunity,” “may,” “should,” or the negative thereof or variations thereon or similar expressions generally intended to identify forward-looking statements. Such forward-looking statements, including those concerning our expectations, involve risks, uncertainties and other factors, some of which are beyond our control, which may cause our actual results, performance or achievements, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. The risks, uncertainties and factors that could cause our results to differ materially from our expectations and beliefs include, but are not limited to, those factors set forth in this Annual Report on Form 10-K under “Item 1A. - Risk Factors.” You should read that information in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Item 7 of this report and our Consolidated Financial Statements and related notes in Item 8 of this report. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

BALCHEM CORPORATION
ANNUAL REPORT ON FORM 10-K
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PART I

Item 1. Business *(All amounts in thousands, except share and per share data)*

General

Balchem Corporation ("Balchem," the "Company," "we" or "us"), was incorporated in the State of Maryland in 1967. We develop, manufacture, distribute and market specialty performance ingredients and products for the nutritional, food, pharmaceutical, animal health, medical device sterilization, plant nutrition and industrial markets. Our three reportable segments are strategic businesses that offer products and services to different markets: Human Nutrition and Health, Animal Nutrition and Health, and Specialty Products. Sales and production of products outside of our reportable segments and other minor business activities are included in "Other and Unallocated".

We sell our products through our own sales force, independent distributors and sales agents. Financial information concerning our business, business segments and geographic information appears in Management's Discussion and Analysis of Financial Condition and Results of Operations under Item 7 below and in the Notes to our Consolidated Financial Statements included under Item 8 below, which information is incorporated herein by reference.

Human Nutrition and Health

The Human Nutrition and Health ("HNNH") segment provides human grade choline nutrients and mineral amino acid chelated products through this segment for nutrition and health applications. Choline is recognized to play a key role in the development and structural integrity of brain cell membranes in infants, processing dietary fat, reproductive development and neural functions, such as memory and muscle function. The Company's mineral amino acid chelates, specialized mineral salts, and mineral complexes are used as raw materials for inclusion in premier human nutrition products; proprietary technologies have been combined to create an organic molecule in a form the body can readily assimilate. Sales growth for human nutrition applications is reliant on differentiation from lower-cost competitive products through scientific data, intellectual property and customers' appreciation of brand value. Consequently, the Company makes investments in such activities for long-term value differentiation. This segment also serves the food and beverage industry for beverage, bakery, dairy, confectionary, and savory manufacturers. The Company partners with its customers from ideation through commercialization to bring on-trend beverages, baked goods, confections, dairy and meat products to market. The Company has expertise in trends analysis and product development. With its strong manufacturing capabilities in customized spray dried and emulsified powders, extrusion and agglomeration, blended lipid systems, liquid flavor delivery systems, juice and dairy bases, chocolate systems, ice cream bases and variegates, the Company is a one-stop solutions provider for beverage and dairy product development needs. Additionally, this segment provides microencapsulation solutions to a variety of applications in food, pharmaceutical and nutritional ingredients to enhance performance of nutritional fortification, processing, mixing, and packaging applications and shelf-life. Major product applications are baked goods, refrigerated and frozen dough systems, processed meats, seasoning blends, confections, sports and protein bars, dietary plans, and nutritional supplements. The Company also creates cereal systems for ready-to-eat cereals, grain-based snacks, and cereal based ingredients. Through the Kappa and Bergstrom acquisitions, respectively, this segment recently began manufacturing specialty vitamin K2, which is a fast-growing specialty vitamin that plays a crucial role in the human body for bone health, heart health and immunity, and methylsulfonylmethane ("MSM"), which is a widely used nutritional ingredient that provides benefits for joint health, sports nutrition, skin and beauty, and healthy aging.

Animal Nutrition and Health

The Company's Animal Nutrition and Health ("ANH") segment provides nutritional products derived from its microencapsulation and chelation technologies in addition to the essential nutrient choline chloride. For ruminant animals, the Company's microencapsulated products boost health and milk production by delivering nutrient supplements that are biologically available, providing required nutritional levels. The Company's proprietary chelation technology provides enhanced nutrient absorption for various species of production and companion animals and is marketed for use in animal feed throughout the world. ANH also manufactures and supplies choline chloride, an essential nutrient for monogastric animal health, predominantly to the poultry, pet and swine industries. Choline, which is manufactured and sold in both dry and aqueous forms, plays a vital role in the metabolism of fat. In poultry, choline deficiency can result in reduced growth rates and perosis in young birds, while in swine production choline is a necessary and required component of gestating and lactating sow diets for both liver health and prevention of leg deformity. Through the Bergstrom acquisition, this segment recently began manufacturing methylsulfonylmethane ("MSM"), which is a widely used nutritional ingredient that provides benefits for pet health.

Sales of value-added encapsulated products are highly dependent on overall industry economics as well as the Company's ability to leverage the results of university and field research on the animal health and production benefits of our products. Management believes that success in the commodity-oriented choline chloride marketplace is highly dependent on the Company's ability to maintain its strong reputation for excellent product quality and customer service. The Company continues to drive production efficiencies in order to maintain its competitive-cost position to effectively compete in a competitive global marketplace.

Specialty Products

The Company re-packages and distributes a number of performance gases and chemicals for various uses by its customers, notably ethylene oxide, propylene oxide, and ammonia. Ethylene oxide is sold as a sterilant gas, primarily for use in the health care industry. It is used to sterilize a wide range of medical devices because of its versatility and effectiveness in treating hard or soft surfaces, composites, metals, tubing and different types of plastics without negatively impacting the performance of the device being sterilized. Contract sterilizers and medical device manufacturers are principal customers for this product. Propylene oxide is marketed and sold as a fumigant to aid in the control of insects and microbiological spoilage; and to reduce bacterial and mold contamination in certain shelled and processed nut meats, processed spices, cacao beans, cocoa powder, raisins, figs and prunes, and for various chemical synthesis applications, such as increasing paint durability and manufacturing specialty starches and textile coatings. Ammonia is used primarily as a refrigerant, and also for heat treatment of metals and various chemical synthesis applications, and is distributed in reusable and recyclable drum and cylinder packaging approved for use in the countries these products are shipped to.

The Company's performance gases and chemicals are distributed worldwide in specially designed, reusable and recyclable drum and cylinder packaging, to assure compliance with safety, quality and environmental standards as outlined by the applicable regulatory agencies in the countries our products are shipped to. The Company's inventory of these specially built drums and cylinders, along with its five filling facilities, represents a significant capital investment. The Company also sells single use canisters for use in sterilizing re-usable devices typically processed in autoclave units in hospitals.

The Company's micronutrient agricultural nutrition business sells chelated minerals primarily to producers of high value crops. The Company has a unique and patented two-step approach to solving mineral deficiency in plants to optimize health, yield and shelf-life. First, the Company determines optimal mineral balance for plant health. The Company then has a foliar applied Metalosate[®] product range, utilizing patented amino acid chelate technology. Its products quickly and efficiently deliver mineral nutrients. As a result, the farmer/grower gets healthier crops that are more resistant to disease and pests, larger yields and healthier food for the consumer with extended shelf life for produce being shipped long distances.

Acquisitions

On August 30, 2022, our wholly-owned subsidiary Albion Laboratories, Inc. ("Albion") entered into a Stock Purchase Agreement, and closed on such transaction with Cardinal Associates Inc. ("Cardinal"), a corporation organized under the laws of the State of Washington, pursuant to which Albion acquired Cardinal and its Bergstrom Nutrition business (collectively, "Bergstrom"). Bergstrom is a leading science-based manufacturer of methylsulfonylmethane ("MSM"), based in Vancouver, Washington. Details related to the Bergstrom acquisition are disclosed in Note 2, Significant Acquisitions. The acquisition provides a synergistic scientific advantage in the Company's key strategic therapeutic focus areas such as longevity and performance and is a strong fit with the Company's specialty, science-backed mineral products, which should ultimately lead to growth for the Company's portfolios within the Human Nutrition and Health and Animal Nutrition and Health segments.

On June 21, 2022, we and our wholly-owned subsidiary, Balchem B.V., completed the acquisition of Kechu BidCo AS and its subsidiary companies, including Kappa Bioscience AS, a leading science-based manufacturer of specialty vitamin K2 for the human nutrition industry, headquartered in Oslo, Norway (all acquired companies collectively referred to as "Kappa"). Details related to the Kappa acquisition are disclosed in Note 2, Significant Acquisitions. The acquisition strengthens our scientific and technical expertise, geographic reach, and marketplace leadership, which should ultimately lead to accelerated growth for the Company's portfolios within the Human Nutrition and Health segment.

Raw Materials

The raw materials utilized by us in the manufacture of our products are sourced from suppliers both domestically and internationally. Such raw materials include materials derived from petrochemicals, minerals, metals, agricultural commodities and other readily available commodities and are subject to price fluctuations due to market conditions. In 2022, we continued to experience some difficulties in procuring certain materials due to the challenging macroeconomic environment with global supply chain disruptions because of the COVID-19 pandemic as well as significant inflation on raw materials. However, we were able to secure most necessary materials from our suppliers and will strive to ensure a sustainable supply chain to support our growing business operations.

Intellectual Property

We currently hold over 150 patents in the United States and overseas and use certain trade-names and trademarks. We also use know-how, trade secrets, formulae, and manufacturing techniques that assist in maintaining competitive positions of certain of our products. Formulae and know-how are of particular importance in the manufacture of a number of our proprietary products. We believe that our patents, in the aggregate, are advantageous to our business. However, we do not believe we are materially dependent on any particular patent or any particular group of patents. We believe that our sales and competitive position are dependent primarily upon the quality of our products, technical sales efforts and market conditions, rather than on patent protection.

Seasonality

While in general, the businesses of our segments are not seasonal to any material extent, the plant nutrition business within Specialty Products is a seasonal business with the vast majority of sales occurring in the first half of the year, based on the planting season in the northern hemisphere.

Backlog

At December 31, 2022, we had a total backlog of \$47,022 (comprised of \$31,550 for the HNH segment; \$11,983 for the ANH segment; \$2,980 for the Specialty Products segment, and \$509 for other), as compared to a total backlog of \$65,661 at December 31, 2021 (comprised of \$45,393 for the HNH segment; \$14,483 for the ANH segment; \$4,935 for the Specialty Products segment and \$850 for other). It has generally been our policy and practice to maintain an inventory of finished products and/or component materials for our segments to enable us to ship products within two months after receipt of a product order. This was more difficult in 2021 given the macroeconomic and supply chain challenges we experienced, but those challenges eased in the second half of 2022 and all orders in the current backlog are expected to be filled in the 2023 fiscal year.

Competition

Our competitors include many large and small companies, some of which have greater financial, research and development, production and other resources than us. Competition in the supplement, food and beverage markets we serve are based primarily on product performance, customer support, quality, service and price. The development of new and improved products is important to our success. This competitive environment requires substantial investments in product and manufacturing process research and development. In addition, the winning and retention of customer acceptance of our food and nutrition products involve substantial expenditures for application testing, either internally or at customer/prospect sites, and sales efforts. Our competition in this market includes a variety of ingredient and nutritional supplement companies, many of which are privately-held. Therefore, it is difficult to assess the size of all of our segment competitors or where we rank in comparison to such privately-held competitors.

Competition in the animal feed and industrial markets we serve are based primarily on product performance, customer support, quality, service and price. The markets for our products are subject to competitive risks because these markets are highly price competitive. Our competition in this market includes a variety of animal nutrition and health ingredient companies, along with certain industrial companies, many of which are privately-held. Therefore, we are unable to assess the size of all of our competitors or where we rank in comparison to such privately-held competitors.

In the Specialty Products segment, competition within Performance Gases is based primarily on service, reliability, quality, and price. Our competition in this market varies globally, many of which are regional privately-held companies. We also face competition from alternate technologies or substitute products. In our plant nutrition business, competition is based primarily on product performance, customer support, quality, and price. The development of new and improved products is also important to our ability to compete. Our competition in this market is primarily regional privately-held companies.

Research and Development

During the years ended December 31, 2022, 2021 and 2020, we incurred research and development expenses of approximately \$12,191, \$13,524, and \$10,332, respectively, on Company-sponsored research and development for new products, improvements to existing products, and manufacturing processes. We have historically funded our research and development programs with funds available from current operations with the intent of recovering those costs from profits derived from future sales of products resulting from, or enhanced by, the research and development effort.

We prioritize our product development activities in an effort to allocate resources to those product candidates that, we believe, have the greatest commercial potential. Factors we consider in determining the products to pursue include projected markets and needs, status of our proprietary rights, technical feasibility, expected and known product attributes, and estimated costs to bring the product to market.

Capital Projects

We continue to invest in projects across all production facilities and capital expenditures were approximately \$49,086, \$36,142, and \$32,080 for 2022, 2021 and 2020, respectively. In 2022, we invested \$29,759 on projects expected to provide favorable returns on investment, including expanded capacity in key product lines in the HNH segment. In addition, we invested \$6,020 for environmental, health, safety, and security upgrades to our facilities and \$3,024 in automation projects that improved quality and efficiency of our operations. In 2021, we invested \$20,544 on projects expected to provide favorable returns on investment, including expanded capacity in key product lines in the HNH segment. In addition, we invested \$3,138 for environmental, health, safety, and security upgrades to our facilities, \$2,330 in automation projects that improved quality and efficiency of our operations, and \$2,222 in research and development projects. In 2020, we invested \$16,856 on projects expected to provide favorable returns on investment, including expanded capacity in key product lines in the HNH segment. In addition, we invested \$3,297 for environmental, health, safety, and security upgrades to our facilities as well as \$3,252 in automation projects that improved safety and quality of our operations. Capital expenditures are projected to range from \$40,000 to \$50,000 for 2023, including our continued efforts to invest in energy and water saving projects, while exploring additional renewable energy opportunities in support of the company's sustainability efforts.

Environmental and Regulatory Matters

The Federal Insecticide, Fungicide and Rodenticide Act ("FIFRA"), a health and safety statute, requires that certain products within our Specialty Products segment must be registered with the EPA because they are considered pesticides. In order to obtain a registration, an applicant typically must demonstrate, through extensive test data, that its product will not cause unreasonable adverse effects on human health or the environment. We hold EPA registrations permitting us to sell ethylene oxide as a medical device sterilant and spice fumigant and propylene oxide as a fumigant of nuts and spices.

In April 2008, the EPA issued a RED ("Re-registration Eligibility Decision") for ethylene oxide which permitted the continued use of ethylene oxide "to sterilize medical or laboratory equipment, pharmaceuticals, and aseptic packaging, or to reduce microbial load on musical instruments, cosmetics, whole and ground spices and other seasoning materials and artifacts, archival material or library objects". In 2013, the EPA initiated a new registration review of ethylene oxide, in line with and as part of the registration review scheduled for a large number of other pesticides. When the Final Work Plan was issued in March 2014, the EPA anticipated that this registration review process would take approximately seven years. In December 2016, the EPA issued its Integrated Risk Information System ("IRIS") assessment of ethylene oxide (the "IRIS Assessment"), another aspect of the EPA's safety review of ethylene oxide. In November 2020, the EPA issued a Draft Human Health Risk Assessment for Ethylene Oxide ("Draft HHRA"). In this Draft HHRA, the EPA presented multiple perspectives on risk extrapolation, including the IRIS Assessment. While acknowledging the necessity of maintaining the critical uses of ethylene oxide, based on the range of unit risk provided in this qualitative assessment, the EPA stated that there should be further mitigation measures implemented which will likely require some label changes. Several mitigation measures are under consideration and the EPA is expected to issue a Proposed Interim Decision in early 2023. We believe that the EPA intends to reregister ethylene oxide for the sterilization of medical or laboratory equipment, pharmaceuticals, and aseptic packaging, with the mitigation measures potentially impacting certain users, including Balchem and its customers. The product, when used as a sterilant for certain medical devices, has no known equally effective substitute. In October 2019, the U.S. Food and Drug Administration in a public statement said, "Although medical devices can be sterilized by several methods, ethylene oxide is the most common method of sterilization of medical devices in the U.S. and is a well-established and scientifically-proven method of preventing harmful microorganisms from reproducing and causing infections." Management believes the lack of availability of this product could not be easily tolerated by various medical device manufacturers or the health care industry due to the resultant infection potential.

Similarly, the EPA issued a RED for propylene oxide in August 2006. At that time, the EPA “determined that products containing the active ingredient propylene oxide (“PPO”) are eligible for re-registration provided that...risk mitigation measures...are adopted.” Our product label was amended as required to reflect these mitigation measures and also to show that propylene oxide has been reclassified as a restricted use pesticide. In 2013, the EPA initiated a new registration review of propylene oxide, in line with and as part of the registration review scheduled for a large number of other pesticides. A Final Work Plan was issued in March 2014, and the EPA anticipated that this review process would take approximately seven years. In October 2020, the EPA issued both the Proposed Interim Registration Review Decision and Draft Risk Assessment for propylene oxide. In July 2021, the EPA issued the Interim Registration Review Decision. Based on these documents, the use of propylene oxide to treat nuts and spices will continue to be permitted with minimal changes to the current approved level. We submitted those changes and expect the EPA to review and approve them in the coming months during 2023.

Our facility in Verona, Missouri, while held by a prior owner, was designated by the EPA as a Superfund site and placed on the National Priorities List in 1983, because of dioxin contamination on portions of the site. Remediation was conducted by the prior owner under the oversight of the EPA and the Missouri Department of Natural Resources (“MDNR”). While we must maintain the integrity of the capped areas in the remediation areas on the site, the prior owner is responsible for completion of any further Superfund remedy. We are indemnified by the sellers under our May 2001 asset purchase agreement covering our acquisition of the Verona, Missouri facility for potential liabilities associated with the Superfund site, and one of the sellers, in turn, has the benefit of certain contractual indemnification by the prior owner that executed the above-described Superfund remedy. In February 2022, BCP Ingredients, Inc. (“BCP”), the Company subsidiary that operates the site, received Special Notice Letter from EPA for the performance of a focused remedial investigation/feasibility study (“RI/FS”) at the site with regard to the presence of certain contaminants, including 1,4 dioxane. BCP, along with the prior owner of the Verona facility submitted a joint response to the notice in November 2022.

In connection with normal operations at our plant facilities, we are required to maintain environmental and other permits, including those relating to the use of ethylene oxide. From time to time, our manufacturing sites may be subject to inspections by the EPA and other agencies. To the extent any consent orders or other agreements are entered into as a result of findings from such inspections, the Company is committed to ensuring compliance with such orders or agreements.

We believe we are in compliance in all material respects with federal, state, local and international provisions that have been enacted or adopted regulating the discharge of materials into the environment or otherwise relating to the protection of the environment. Such compliance includes the maintenance of required permits under air pollution regulations and compliance with requirements of the Occupational Safety and Health Administration. The cost of such compliance has not had a material effect upon the results of our operations or our financial condition.

We produce products which are required to be manufactured in conformity with current Good Manufacturing Practice (“cGMP”) regulations as interpreted and enforced by the FDA, through third party contract arrangement. Modifications, enhancements or changes in contracted manufacturing facilities or procedures relating to our pharmaceutical products are, in many circumstances, subject to FDA approval, which may be subject to a lengthy application process or which we may be unable to obtain. Any contracted manufacturing facilities that manufacture our pharmaceutical products are periodically subject to inspection by the FDA and other governmental agencies, and operations at these facilities could be interrupted or halted if the results of these inspections are unsatisfactory.

Human Capital

Our employees are our most valued asset and fundamental to our success. As of December 31, 2022, we employed approximately 1,340 full-time employees worldwide, with approximately 17% covered by collective bargaining agreements. As of December 31, 2021, we employed approximately 1,317 full-time employees worldwide, with approximately 17% covered by collective bargaining agreements. Although we are facing challenging labor markets, we believe that we have been successful in attracting skilled and experienced personnel in a competitive environment and that our human capital resources are adequate to perform all business functions. In addition, we continue to enhance technology in order to optimize productivity and performance.

Health and Safety

Protecting the workplace environment and the health and safety of our employees, contractors, visitors, and neighbors is our top priority. Our recordable injury rate, which was defined by recordable injuries per 200,000 hours worked, was 1.17 and 0.99 in 2022 and 2021, respectively. We continually upgrade our facilities to reduce risks and establish procedures with appropriate personnel protection for the safety of our employees. Our safety program is structured around five pillars: process safety, personal safety, industrial hygiene, transportation safety and environmental safety, and focuses on driving higher ownership and engagement from employees and contractors.

Diversity and Inclusion

We recognize that our best performance is achieved when our teams are diverse, and accordingly, diversity and inclusion are important elements of Balchem's Human Resources strategy. We strive to promote inclusion through the implementation of inclusive leadership training across the Company and are committed to increasing representation of minorities throughout the organization. In 2022, our total workforce consisted of 75% male and 25% female among all employees and 50% male and 50% female when excluding supply chain and operations functions. In 2021, our total workforce consisted of 76% male and 24% female among all employees and 50% male and 50% female when excluding supply chain and operations functions. With the support of our Board of Directors, we continue to explore additional diversity and inclusion initiatives.

Training and Well-Being Programs

We strive to develop employee skills and knowledge, which includes training for job-specific technical knowledge, regulatory requirements, and company policies, through our internal learning and development platform. The topics of trainings include the Company's Code of Conduct, anti-harassment and discrimination, foreign corrupt practices, antitrust, cyber security, and various other compliance subjects. Our sponsored employee Continuing Learning program offers a broad base of assistance for employees, including learning and development courses. We also deployed unconscious bias and inclusive leadership training to our management team. Employees have access to healthy lifestyle discounts through our Wellness Center, as well as debt, legal, and financial counseling. Leadership programs, peak performance training and multiple online services and courses enable our employees to choose their own learning paths and work towards achieving their goals for education, finances, and overall well-being.

Performance Review, Compensation and Benefits

Our annual performance review process is an important, objective-based dialogue to foster continuous growth and development by providing an opportunity to establish goals and deliver feedback relative to each employee's performance. Balchem's annual review process is closely aligned with a formal succession planning and talent review process designed to identify and develop the next generation of leaders.

We are dedicated to providing full-time employees with a competitive compensation package that includes medical, dental, vision, and prescription benefits in addition to a 401(k) matching program. Balchem also provides financial support for health and wellness programs such as online financial wellness content, sponsored weight loss programs and subsidized gym memberships. We also provide generous time off and leave benefits, which are important to help ensure employees can enjoy a healthy balance between work and family time.

For the year ended December 31, 2022 and 2021, our turnover rate was 15% and 13%, respectively, for salaried employees with an average length of service of over 9 years and 10 years, respectively. We are continuing to improve employee retention with effective employment engagement efforts, a productive performance review process, and competitive compensation.

Environmental, Social and Governance

We operate as strong stewards of our shareholders, customers, suppliers, employees, and the communities in which we operate. We are working to make our workforce more inclusive, our business more sustainable, and our communities more engaged by maintaining strong environmental, social and governance ("ESG") practices.

In 2022, we published our 2021 Sustainability Report, prepared in accordance with the Global Reporting Initiative ("GRI") Standards: Core option. This report provides detailed information regarding our ESG strategy, focus areas and governance structure. We are committed to reducing our greenhouse gas emissions by implementing new technologies, improving operational efficiencies, and expanding green energy usages. In addition, we are committed to reducing our global water use by reducing and recycling water usage and investing new technologies to improve water efficiency. For more information on our approach to sustainability management, refer to our 2021 Sustainability Report, which is available on our website at <https://balchem.com/our-company/corporate-social-responsibility/sustainability>. The information contained on, or that may be accessed through, the Company's website is not incorporated by reference into, and is not part of, this Annual Report on Form 10-K.

In January 2023, Balchem was named one of America's Most Responsible Companies by Newsweek magazine for the third consecutive year. This prestigious list, compiled by Newsweek in partnership with Statista Inc., recognizes the most responsible companies in the U.S. across a variety of industries, and is based on publicly available environmental, social and governance (ESG) data. We are very proud of our ESG accomplishments to date and are pleased with the recognition by Newsweek.

Available Information

Our headquarters is located at 5 Paragon Drive, Montvale, NJ 07645. Our telephone number is (845) 326-5600 and our Internet website address is www.balchem.com. We make available through our website, free of charge, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, and amendments to such reports, as soon as reasonably practicable after they have been electronically filed with the Securities and Exchange Commission (the "SEC"). Such reports are available via a link from the Investor Relations page on our website to a list of our reports on the SEC's EDGAR website. The address of the SEC's website is www.sec.gov.

Item 1A. Risk Factors

We discuss our expectations regarding future performance, events and outcomes in this Form 10-K, quarterly and annual reports, press releases and other written and oral communications. All statements except for historical and present factual information are "forward-looking statements" and are based on financial data and business plans available only as of the time the statements are made, which may become outdated or incomplete. Forward-looking statements are inherently uncertain, and investors must recognize that events could significantly differ from our expectations. You should carefully consider the risk factors discussed below, together with all the other information included in this Form 10-K, in evaluating us and our ordinary shares. If any of the risks below actually occurs, our business, financial condition, results of operations and cash flows could be materially and adversely affected. Any such adverse effect may cause the trading price of our ordinary shares to decline, and as a result, you could lose all or part of your investment in us. Our business may also be adversely affected by risks and uncertainties not known to us or risks that we currently believe to be immaterial. We assume no obligation to update any forward-looking statements as a result of new information, future events or other factors.

Operational Risks

Our business, results of operations, financial condition, cash flows and stock price can be adversely affected by pandemics, epidemics or other public health emergencies, such as COVID-19.

Our business, results of operations, financial condition, cash flows and stock price can be adversely affected by pandemics, epidemics or other public health emergencies, such as COVID-19. The COVID-19 pandemic has resulted in governments around the world implementing certain measures to help control the spread of the virus, including quarantines, "shelter in place" and "stay at home" orders, travel restrictions, business curtailments, school closures, and other measures.

Our businesses have been deemed "essential" under the orders issued by federal, state and local governments. Although we have continued to operate our facilities to date consistent with federal guidelines and state and local orders, COVID-19 or similar viruses and any preventive or protective actions taken by governmental authorities may have a material adverse effect on our operations, supply chain, customers, and transportation networks, including business shutdowns or disruptions. The extent to which viruses such as COVID-19 and their variants may adversely impact our business depends on future developments, which are highly uncertain and unpredictable, depending upon the severity and duration of any virus outbreak and the effectiveness of actions taken globally to contain or mitigate the effects thereof. Any resulting financial impact cannot be estimated reasonably at this time, but may materially adversely affect our business, results of operations, financial condition and cash flows. Additionally, concerns over the economic impact of COVID-19 and its variants have caused extreme volatility in financial and other capital markets which may adversely impact our stock price and may affect our ability to access capital markets. To the extent the COVID-19 pandemic adversely affects our business and financial results, it may also have the effect of heightening many of the other risks described within this report. While we have implemented mitigation strategies as needed to protect the long-term sustainability of our company and will continue to respond as appropriate, the impact of the COVID-19 pandemic continues to evolve and its ultimate impact on our business is uncertain and difficult to predict.

We face risks associated with our sales to customers and manufacturing operations outside the United States.

Our net sales consist of sales both within and outside the United States. In addition, we conduct a portion of our manufacturing outside the United States. The majority of our foreign sales occur through our foreign subsidiaries and the remainder of our foreign sales result from exports to foreign distributors, resellers and customers. Our foreign sales and operations are subject to a number of risks, including: longer accounts receivable collection periods; the impact of recessions and other economic conditions in economies outside the United States; export duties and quotas; changes in tariffs, trade restrictions, and trade relations including but not limited to those associated with the North American Free Trade Agreement and the exit of the United Kingdom from the European Union; unexpected changes in regulatory requirements; certification requirements; environmental regulations; reduced protection for intellectual property rights in some countries; potentially adverse tax consequences; political and economic instability; and preference for locally produced products. These factors could have a material adverse impact on our ability to increase or maintain our international sales.

Our sales and operations may be adversely affected by supply chain disruptions due to political unrest, terrorist acts, and national and international conflicts, including Russia's invasion of Ukraine.

Our sales and operations are subject to a number of risks, including political and economic instability, which could have a material adverse impact on our ability to increase or maintain our international sales and operations. National and international conflicts such as war, border closures, civil disturbances and terrorist acts, including Russia's invasion of Ukraine, may increase the likelihood of already strained supply interruptions and further hinder our ability to access the materials and energy we need to manufacture our products. Additional supply chain disruptions will make it harder for us to find favorable pricing and reliable sources for the materials we need. As a result, such disruptions will put upward pressure on our costs and increase the risk that we may be unable to acquire the materials and services we need to continue to make certain products, in particular at our manufacturing facilities in Europe.

Our financial success depends in part on the reliability and sufficiency of our manufacturing facilities.

Our revenues depend on the effective operation of our manufacturing, packaging, and processing facilities. The operation of our facilities involves risks, including the breakdown, failure, or substandard performance of equipment, power outages, the improper installation or operation of equipment, explosions, fires, natural disasters, failure to achieve or maintain safety or quality standards, work stoppages, supply or logistical outages, and the need to comply with environmental and other directives of governmental agencies. The occurrence of material operational problems, including, but not limited to, the above events, could adversely affect our profitability during the period of such operational difficulties.

Our ability to successfully grow and expand our business depends on our ability to recruit and retain a highly qualified and diverse workforce.

Our ability to successfully grow and expand our business is dependent upon our ability to recruit and retain a workforce with the skills necessary to develop, manufacture and deliver the products and services desired by our customers. We need highly skilled and qualified personnel in multiple areas, including research and development, engineering, sales, manufacturing, information technology, cybersecurity, accounting, regulatory, and management. We must therefore continue to effectively recruit, retain and motivate highly qualified, skilled and diverse personnel to maintain our current business and support our projected growth. A shortage of these employees for various reasons, including intense competition for skilled employees, labor shortages, increased labor costs, candidates' preference to work remotely, changes in laws and policies regarding immigration and work authorizations in jurisdictions where we have operations, or any government mandates that may result in workforce attrition and difficulty with recruiting, may jeopardize our ability to grow and expand our business.

We may, from time to time, experience problems in our labor relations.

A portion of our North American workforce is represented by a union under a single collective bargaining agreement. In Europe, employees at our Marano, Ticino, Italy facility and Bertinoro, Italy facility are covered by a national collective bargaining agreement, respectively. We believe that our present labor relations with all our union employees are satisfactory, however, our failure to renew these agreements on reasonable terms could result in labor disruptions and increased labor costs, which could adversely affect our financial performance. Similarly, if our relations with the union portion of our workforce do not remain positive, such employees could initiate a strike, work stoppage or slowdown in the future. In the event of such an action, we may not be able to adequately meet the needs of our customers using our remaining workforce and our operations and financial condition could be adversely affected. Additionally, other portions of our workforce could become subject to union campaigns.

The effects of global climate change or other unexpected events, including global health crises, may disrupt our operations and have a negative impact on our business.

The effects of global climate change, such as extreme weather conditions and natural disasters occurring more frequently or with more intense effects, or the occurrence of unexpected events including wildfires, tornadoes, hurricanes, earthquakes, floods, tsunamis and other severe hazards or global health crises, such as the outbreak of Ebola or the global COVID-19 pandemic, or other actual or threatened epidemic, pandemic, outbreak and spread of a communicable disease or virus, in the countries where we operate or sell products and provide services, could adversely affect our operations and financial performance. Extreme weather, natural disasters, power outages, global health crises or other unexpected events could disrupt our operations by impacting the availability and cost of materials needed for manufacturing, causing physical damage and partial or complete closure of our manufacturing sites or distribution centers, loss of human capital, temporary or long-term disruption in the manufacturing and supply of products and services and disruption in our ability to deliver products and services to customers. These events and disruptions could also adversely affect our customers' and suppliers' financial condition or ability to operate, resulting in reduced customer demand, delays in payments received or supply chain disruptions. Further, these events and disruptions could increase insurance and other operating costs, including impacting our decisions regarding construction of new facilities to select areas less

prone to climate change risks and natural disasters, which could result in indirect financial risks passed through the supply chain or other price modifications to our products and services.

We may be subject to risks relating to our information technology and operational technology systems.

We rely extensively on information technology and operational technology systems, networks and services including hardware, software, firmware and technological applications and platforms (collectively, "IT Systems") to manage and operate our business from end-to-end, including ordering and managing materials from suppliers, design and development, manufacturing, marketing, selling and shipping to customers, invoicing and billing, managing our banking and cash liquidity systems, managing our enterprise resource planning and other accounting and financial systems and complying with regulatory, legal and tax requirements. We have invested and will continue to invest in improving our IT Systems. Some of these investments are significant and impact many important operational processes and procedures. There is no assurance that newly implemented IT Systems will improve our current systems, improve our operations or yield the expected returns on the investments. In addition, the implementation of new IT Systems may be more difficult, costly or time consuming than expected and cause disruptions in our operations and, if not properly implemented and maintained, negatively impact our business. If our IT Systems cease to function properly or if these systems do not provide the anticipated benefits, our ability to manage our operations could be impaired.

We currently rely on third-party service providers for many of the critical elements of our global information and operational technology infrastructure and their failure to provide effective support for such infrastructure could negatively impact our business and financial results.

We have outsourced many of the critical elements of our global information and operational technology infrastructure to third-party service providers in order to achieve efficiencies. If such service providers do not perform or do not perform effectively, we may not be able to achieve the expected efficiencies and may have to incur additional costs to address failures in providing service by the service providers. Depending on the function involved, such non-performance, ineffective performance or failures of service may lead to business disruptions, processing inefficiencies or security breaches.

Disruptions or breaches of our information systems could adversely affect us.

Despite our implementation of cybersecurity measures which have focused on prevention (including a robust cybersecurity employee education program to train our employees on email and password security, recognizing phishing and related topics on a regular basis), mitigation, resilience and recovery, our network and products, including access solutions, may be vulnerable to cybersecurity attacks, computer viruses, malicious codes, malware, ransomware, phishing, social engineering, denial of service, hacking, break-ins and similar disruptions. Cybersecurity attacks and intrusion efforts are continuous and evolving, and in certain cases they have been successful at the most robust institutions. The scope and severity of risks that cyber threats present have increased dramatically and include, but are not limited to, malicious software, attempts to gain unauthorized access to data or premises, exploiting weaknesses related to vendors or other third parties that could be exploited to attack our systems, denials of service and other electronic security breaches that could lead to disruptions in systems, unauthorized release of confidential or otherwise protected information and corruption of data. Any such event could have a material adverse effect on our business, operating results and financial condition, as we face regulatory, reputational and litigation risks resulting from potential cyber incidents, as well as the potential of incurring significant remediation costs. Further, while we maintain insurance coverage that may, subject to policy terms and exclusions, cover certain aspects of our cyber risks, such insurance coverage may be insufficient to cover our losses or all types of claims that may arise in the continually evolving area of cyber risk.

Our daily business operations also require us to collect and/or retain sensitive data such as intellectual property, proprietary business information and data related to customers, employees, suppliers and business partners within our networking infrastructure including data from individuals subject to the European Union's General Data Protection Regulation, that is subject to privacy and security laws, regulations and/or customer-imposed controls. Despite our efforts to protect such data, the loss or breach of such data due to various causes including material security breaches, catastrophic events, extreme weather, natural disasters, power outages, system failures, computer viruses, improper data handling, programming errors, unauthorized access and employee error or malfeasance could result in wide reaching negative impacts to our business, and as such, the ongoing maintenance and security of this information is pertinent to the success of our business operations and our strategic goals.

Our networking infrastructure and related assets may be subject to unauthorized access by hackers, employee error or malfeasance or other unforeseen activities. Such issues could result in the disruption of business processes, network degradation and system downtime, along with the potential that a third party will exploit our critical assets such as intellectual property, proprietary business information and data related to our customers, suppliers and business partners. To the extent that such disruptions occur and our business continuity plans do not effectively address these disruptions in a timely manner, they may cause delays in the manufacture or shipment of our products and the cancellation of customer orders and, as a result, our business, operating results and financial condition could be materially and adversely affected, resulting in a possible loss of business or brand reputation.

Business and Financial Risks

Increased competition could adversely affect our business and financial results.

We face competition in our markets from a number of large and small companies, some of which have greater financial, research and development, production and other resources than we do. Our competitive position is based principally on performance, quality, customer support, service, breadth of product line, manufacturing or packaging technology and the selling prices of our products. We may be unable to effectively compete on all these bases. Further, our competitors may improve the design and performance of their products and introduce new products with competitive price and performance characteristics. While we expect to do the same to maintain our current competitive position and market share, if we are unable to anticipate evolving trends in the market or the timing and scale of our competitors' activities and initiatives, the demand for our products and services could be negatively impacted.

Global economic conditions may adversely affect our business, operating results and financial condition.

Unfavorable changes in economic conditions, including inflation, recession, changes in tariffs and trade relations amongst international trading partners, or other changes in economic conditions, may adversely impact the markets in which we operate. These conditions may make it extremely difficult for our customers, our vendors and us to accurately forecast and plan future business activities, and they could cause U.S. and foreign businesses to slow spending on our products which would reduce our revenues and profitability. If inflation in costs such as raw materials, packaging, freight, labor and energy prices increase beyond our ability to control for them through measures such as implementing operating efficiencies, we may not be able to increase prices to sufficiently offset the effect of various costs increases without negatively impacting customer demand, thereby negatively impacting our margin performance and results of operations.

Furthermore, during challenging economic times our customers may face issues gaining timely access to sufficient credit, which could result in an impairment of their ability to make timely payments to us. If that were to occur, we may be required to increase our allowance for doubtful accounts and cash flow would be negatively impacted. We cannot predict the timing, depth or duration of any economic slowdown or subsequent economic recovery, worldwide, or in the markets in which we operate. Also, at any point in time we have funds in our cash accounts that are with third party financial institutions. These balances in the U.S. and other countries could exceed the Federal Deposit Insurance Corporation ("FDIC") and other relevant insurance limits, respectively. While we monitor the cash balances in our accounts, these balances could be impacted if the underlying financial institutions fail or could be subject to other adverse conditions in the financial markets. Additionally, our future results of operations could be adversely affected by changes in the effective tax rate as a result of a change in the mix of earnings in jurisdictions with differing statutory tax rates, changes in tax laws, regulations and judicial rulings or changes in the interpretation thereof.

Raw material shortages or price increases could adversely affect our business and financial results.

The principal raw materials that we use in the manufacture of our products can be subject to price fluctuations due to market conditions and factors beyond our control, including the COVID-19 pandemic and inflationary pressures, both of which have impacted our business over the past several years and are likely to continue for some time. Such raw materials include materials derived from petrochemicals, minerals, metals, agricultural commodities and other commodities. While the selling prices of our products tend to increase or decrease over time with the cost of raw materials, these changes may not occur simultaneously or to the same degree. At times, including during periods of rapidly increasing raw material prices, we may be unable to pass increases in raw material costs through to our customers due to certain contractual obligations. Such increases in the price of raw materials, if not offset by product price increases, or substitute raw materials, would have an adverse impact on our profitability. We believe we have reliable sources of supply for our raw materials under normal market conditions. We cannot, however, predict the likelihood or impact of any future raw material shortages. Any shortages or unforeseen price increases could have a material adverse impact on our results of operations.

Our international operations subject us to currency translation risk and currency transaction risk which could cause our results to fluctuate from period to period.

The financial condition and results of operations of our foreign subsidiaries are reported in local currencies and then translated into U.S. dollars at the applicable currency exchange rate for inclusion in our consolidated financial statements. Exchange rates between these currencies in recent years have fluctuated and may do so in the future. Furthermore, we incur currency transaction risk whenever we enter into either a purchase or a sales transaction using a currency different than the functional currency. Given the volatility of exchange rates, we may not be able to effectively manage our currency transactions and/or translation risks. Volatility in currency exchange rates could impact our business and financial results.

Although we utilize risk management tools, such as derivative instruments, to mitigate market fluctuations in foreign currencies, any changes in strategy in regard to risk management tools can also affect revenue, expenses and results of operations and there can be no assurance that such measures will result in cost savings or that all market fluctuation exposure will be eliminated.

Our debt instruments are subject to interest rate risks and impose operating and financial restrictions which could have an adverse impact on our business and results of operations.

Our incurrence of indebtedness could have negative consequences to us, including limiting our ability to borrow additional monies for our working capital, capital expenditures, acquisitions, debt service requirements or other general corporate purposes; limiting our flexibility in planning for, or reacting to, changes in our operations, our business or the industries in which we compete; our leverage may place us at a competitive disadvantage by limiting our ability to invest in the business or in further research and development; making us more vulnerable to downturns in our business or the economy; and there would be a material adverse effect on our business and financial condition if we were unable to service our indebtedness or obtain additional financing, as needed.

Our ability to make payments on our indebtedness depends on our ability to generate cash in the future. If we do not generate sufficient cash flow to meet our debt service and working capital requirements, we may need to seek additional financing or sell assets. This may make it more difficult for us to obtain financing on terms that are acceptable to us, or at all. Without any such financing, we could be forced to sell assets to make up for any shortfall in our payment obligations under unfavorable circumstances.

Interest payable in accordance with our five-year senior secured revolving credit agreement (the "Credit Agreement") is based on a fluctuating rate. In light of potential fluctuations, including interest rate increases which may continue, we are exposed to risk resulting from adverse changes in interest rates.

Further, due to the cessation of the London Interbank Offered Rate ("LIBOR"), we have entered into financial transactions such as credit agreements that use the Secured Overnight Financing Rate ("SOFR") as interest rate benchmarks. SOFR is calculated differently from LIBOR and has inherent differences which could give rise to uncertainties, including the limited historical data and volatility in the benchmark rates. The full effects of the transition to SOFR or other rates remain uncertain.

We may not be able to successfully consummate and manage acquisition, joint venture and divestiture activities which could have an impact on our results.

From time to time, we may acquire other businesses, enter into joint ventures and, based on an evaluation of our business portfolio, divest existing businesses. These acquisitions, joint ventures and divestitures may present financial, managerial and operational challenges, including diversion of management attention from existing businesses, difficulty with integrating or separating personnel and financial and other systems, increased expenses, difficulties in realizing synergies expected to result from acquisitions, potential loss of key employees, key contractual relationships or key customers of acquired companies or of us, difficulties in integrating financial reporting systems and implementing controls, procedures and policies, including disclosure controls and procedures and internal control over financial reporting, appropriate for public companies of our size at companies that, prior to the acquisition, had lacked such controls, procedures and policies, assumption of unknown liabilities and indemnities, and potential disputes with the buyers or sellers. In addition, we may be required to incur asset impairment charges (including charges related to tangible assets, goodwill and other intangible assets) in connection with acquired businesses which may reduce our profitability. If we are unable to consummate such transactions, or successfully integrate and grow acquisitions and achieve contemplated revenue synergies and cost savings, our financial results could be adversely affected. Additionally, joint ventures inherently involve a lesser degree of control over business operations, thereby potentially increasing the financial, legal, operational and/or compliance risks.

We may not be able to effectively manage and implement restructuring initiatives or other organizational changes.

We may, from time to time, restructure or make other adjustments to our workforce and manufacturing footprint in response to market or product changes, performance issues, changes in strategy, acquisitions and/or other internal and external considerations. These restructuring activities and other organizational changes may result in increased restructuring costs, diversion of management's time and attention from daily operations and temporarily reduced productivity. If we are unable to successfully manage and implement restructuring and other organizational changes, we may not achieve or sustain the expected growth or cost savings benefits of these activities or do so within the expected timeframe. These effects could recur in connection with future acquisitions and other organizational changes and our results of operations could be negatively affected.

Changes in our relationships with our vendors, changes in tax or trade policy, interruptions in our operations or supply chain or increased commodity or supply chain costs could adversely affect our results of operations.

We are dependent on our vendors, including common carriers, to supply raw materials to our manufacturing facilities. As we continue to add capabilities to quickly move the appropriate amount of inventory at optimal operational costs through our entire supply chain, operating our fulfillment network becomes more complex and challenging. If our fulfillment network does not operate properly, if a vendor fails to deliver on its commitments, or if common carriers have difficulty providing capacity to meet demands for their services, we could experience inventory shortages, delivery delays or increased delivery costs, which could lead to lost sales and decreased guest confidence, and adversely affect our results of operations.

A large portion of our raw materials are sourced, directly or indirectly, from outside the U.S. Any major changes in tax or trade policy, such as the imposition of additional tariffs or duties on imported products, between the U.S. and countries from which we source raw materials could require us to take certain actions, including for example raising prices on products we sell and seeking alternative sources of supply from vendors in other countries with whom we have less familiarity, which could adversely affect our reputation, sales, and our results of operations.

Political or financial instability, currency fluctuations, the outbreak of pandemics or other illnesses (such as the COVID-19 pandemic), labor unrest, transport capacity and costs, port security, weather conditions, natural disasters, or other events that could alter or suspend our operations, slow or disrupt port activities, or affect foreign trade are beyond our control and could materially disrupt our supply of raw materials, increase our costs, and/or adversely affect our results of operations. There have been periodic labor disputes impacting the U.S. ports that have caused us to make alternative arrangements to continue the flow of inventory, and if these types of disputes recur, worsen, or occur in other countries through which we source products, it may have a material impact on our costs or inventory supply. Changes in the costs of procuring commodities used in our products or the costs related to our supply chain, could adversely affect our results of operations.

Adverse publicity or consumer concern regarding the safety or quality of food products containing our products, or health concerns, whether with our products, products in the same general class as our products or for food products containing our products, may result in the loss of sales. Also, consumer preferences for products containing our products may change.

We are dependent upon consumers' perception of the safety, quality and possible dietary benefits of products containing our food ingredient products. As a result, substantial negative publicity concerning our products or other foods and beverages in which our products are used could lead to a loss of consumer confidence in those products, removal of those products from retailers' shelves and reduced sales and prices of our products. Product quality issues, actual or perceived, or allegations of product contamination, even when false or unfounded, could hurt the image of our products or of brands of products containing our products, and cause consumers to choose other products. Further, any product recall, whether our own or by a third party, whether due to real or unfounded allegations, could impact demand on food products containing our products or even our products. Any of these events could have a material adverse effect on our business, results of operations and financial condition. Consumer preferences, as well as trends, within the food industries change often and our failure to anticipate, identify or react to changes in these preferences and trends could, among other things, lead to reduced demand and price reductions, and could have an adverse effect on our business, results of operations and financial condition. While we continue to diversify our product offerings, developing new products entails risks and we cannot be certain that demand for our products and products containing our products will continue at current levels or increase in the future.

Legal, Regulatory and Compliance Risks

Material adverse legal judgments, fines, penalties or settlements could adversely affect our business.

We may from time to time become involved in legal proceedings and disputes incidental to the operation of our business. Our business may be adversely affected by the outcome of these proceedings and other contingencies (including, without limitation, product liability, tort, environmental, intellectual property, antitrust, data protection, privacy, and labor and employment matters) that cannot be predicted with certainty. As required by GAAP, if applicable, we establish reserves based on our assessment of contingencies. Subsequent developments in legal proceedings and other contingencies may affect our assessment and estimates of the loss contingency recorded as a reserve, and we may be required to make additional material payments.

Our business exposes us to potential product liability claims and recalls, which could adversely impact our financial condition and performance.

Our development, manufacture and sales of food ingredient, pharmaceutical and nutritional supplement products involve an inherent risk of exposure to product liability claims, product recalls, product seizures and related adverse publicity. A product liability judgment against us could also result in substantial and unexpected expenditures, affect consumer confidence in our products, and divert management's attention from other responsibilities. Although we maintain product liability insurance coverage in amounts we believe are customary within the industry, there can be no assurance that this level of coverage is adequate or that we will be able to continue to maintain our existing insurance or obtain comparable insurance at a reasonable

cost, if at all. A product recall or a partially or completely uninsured judgment against us could have a material adverse effect on results of operations and financial condition.

Our brands are important assets of our businesses, and violation of our trademark rights by imitators could negatively impact revenues and brand reputation.

Our brands and trademarks enjoy a reputation for quality and value and are important to our success and competitive position. Unauthorized use of our trademarks may not only erode sales of our products but may also cause significant damage to our brand name and reputation, interfere with relationships with our customers and increase litigation costs. There can be no assurance that our on-going effort to protect our brand and trademark rights will prevent all violations.

Allegations that we have infringed the intellectual property rights of third parties could negatively affect us.

We may be subject to claims of infringement of intellectual property rights by third parties. In general, if it is determined that one or more of our technologies, products or services infringes the intellectual property rights owned by others, we may be required to cease marketing those products or services, to obtain licenses from the holders of the intellectual property at a material cost or to take other actions to avoid infringing such intellectual property rights. The litigation process is costly and subject to inherent uncertainties, and we may not prevail in litigation matters regardless of the merits of our position. Adverse intellectual property litigation or claims of infringement against us may become extremely disruptive if the plaintiffs succeed in blocking the trade of our products and services and may have a material adverse effect on our business.

We are subject to risks related to corporate social responsibility and reputational matters.

Our reputation and the reputation of our brands, including the perception held by our customers, end-users, business partners, investors, other key stakeholders and the communities in which we do business are influenced by various factors. There is an increased focus from our stakeholders on Environmental, Social and Governance (“ESG”) practices and disclosure – and if we fail, or are perceived to have failed, in any number of ESG matters, such as environmental stewardship, goals regarding our intended reduction of carbon emissions and water usage, inclusion and diversity, workplace conduct and support for local communities, or to effectively respond to changes in, or new, legal or regulatory requirements concerning climate change or other sustainability concerns, our reputation or the reputation of our brands may suffer. Such damage to our reputation and the reputation of our brands may negatively impact our business, financial condition and results of operations.

In addition, negative or inaccurate postings or comments on social media or networking websites about the Company or our brands could generate adverse publicity that could damage our reputation or the reputation of our brands. If we are unable to effectively manage real or perceived issues, including concerns about product quality, safety, corporate social responsibility or other matters, sentiments toward the Company or our products could be negatively impacted, and our financial results could suffer.

Our reputation, ability to do business and results of operations could be impaired by adverse publicity or improper conduct by any of our employees, agents or business partners.

We are subject to regulation under a variety of U.S. federal and state and non-U.S. laws, regulations and policies including laws related to anti-corruption, export and import compliance, anti-trust and money laundering due to our global operations. We cannot provide assurance that our internal controls will always protect us from the improper conduct of our employees, agents and business partners. Any improper conduct could damage our reputation and subject us to, among other things, civil and criminal penalties, material fines, equitable remedies (including profit disgorgement and injunctions on future conduct), securities litigation and a general loss of investor confidence.

Our operations are subject to regulatory risks and the loss of governmental permits and approvals would materially and adversely affect some of our businesses.

Our U.S. and non-U.S. operations are subject to a number of laws and regulations, including environmental, health and safety standards. We have incurred, and will be required to continue to incur, significant expenditures to comply with these laws and regulations. Changes to, or changes in interpretations of, current laws and regulations, including climate change legislation or other environmental mandates, could require us to increase our compliance expenditures, cause us to significantly alter or discontinue offering existing products and services or cause us to develop new products and services. Altering current products and services or developing new products and services to comply with changes in the applicable laws and regulations could require significant research and development investments, increase the cost of providing the products and services and adversely affect the demand for our products and services, including shifting demand to competitors in countries where laws and regulations may be less stringent.

In the event a regulatory authority concludes that we are not or have not at all times been in full compliance with these laws or regulations, we could be fined, criminally charged or otherwise sanctioned. Certain environmental laws assess liability on current or previous owners of real property or operators of manufacturing facilities for the costs of investigation, removal or remediation of hazardous substances or materials at such properties or at properties at which parties have disposed of hazardous substances. Liability for investigative, removal and remedial costs under certain U.S. federal and state laws and certain non-U.S. laws are retroactive, strict and joint and several. In addition to cleanup actions brought by governmental authorities, private parties could bring personal injury or other claims due to the presence of, or exposure to, hazardous substances. For more information, see "Item 1. Business – Environmental and Regulatory Matters" of this report.

While we have planned for future capital and operating expenditures to maintain compliance with environmental laws, our costs of compliance may exceed our estimates. We may also be subject to environmental claims for personal injury, liabilities arising from past, present or future releases of, or exposures to, hazardous substances, or cost recovery actions for remediation of facilities in the future based on our past, present or future business activities.

Further, pursuant to applicable environmental and safety laws and regulations, we are required to obtain and maintain certain governmental permits and approvals, including EPA registrations under FIFRA for some of our products. We maintain EPA FIFRA registrations for ethylene oxide as a medical device sterilant and spice fumigant and for propylene oxide as a fumigant of nuts and spices. These products are progressing through a multi-year FIFRA re-registration review process. Recent draft documents indicate that the EPA intends to continue the registrations for both ethylene oxide and propylene oxide with certain additional mitigation measures. The EPA may re-examine the registrations in the future in accordance with the provisions of FIFRA. Any future determination by the EPA to discontinue permitted use of ethylene oxide or propylene oxide would have a material adverse effect on our business and financial results.

Commercial supply of pharmaceutical products that we may develop, subject to cGMP manufacturing regulations, would be performed by third-party cGMP manufacturers. Modifications, enhancements or changes in third-party manufacturing facilities or procedures of our pharmaceutical products are, in many circumstances, subject to FDA approval, which may be subject to a lengthy application process or which we may be unable to obtain. Any third-party cGMP manufacturers that we may use are periodically subject to inspection by the FDA and other governmental agencies, and operations at these facilities could be interrupted or halted if the results of these inspections are unsatisfactory. Failure to comply with the FDA or other governmental regulations can result in fines, unanticipated compliance expenditures, recall or seizure of products, total or partial suspension of production, enforcement actions, injunctions and criminal prosecution, which could have a material adverse effect on our business and financial results.

Permits and approvals may be subject to revocation, modification or denial under certain circumstances. Our operations or activities could result in administrative or private actions, revocation of required permits or licenses, or fines, penalties or damages, which could have an adverse effect on us. In addition, we cannot predict the extent to which any legislation or regulation may affect the market for our products or our cost of doing business.

Concerns about ethylene oxide emissions have resulted in certain state actions against certain of our customers that are currently impacting these customers' ability to use the ethylene oxide process to sterilize medical devices, which may, in turn, affect sales to these customers.

There is increased focus on the use and emissions of ethylene oxide by the EPA and state environmental agencies. Certain of the Company's customers who use ethylene oxide in the U.S. for the sterilization of medical devices have received ongoing state and local scrutiny for environmental concerns at their facilities. This scrutiny is associated with the IRIS Assessment described in "Item 1. Business – Environmental and Regulatory Matters" of this report, which deemed exposure to ethylene oxide as unsafe at levels far below those found in the environment. The EPA began using the IRIS Assessment in 2020 to regulate change to existing permissible emissions' limits at certain non-sterilization ethylene oxide users and producers, and was initially expected to propose rules during 2022 that will regulate sterilization users. These rules have yet to be finalized. Additionally, some state and local regulators have drawn their own conclusions from the IRIS Assessment, which has resulted in certain state actions against our customers that have impacted or are impacting these customers' ability to use the ethylene oxide process to sterilize medical devices. Due to these regulatory actions, one customer facility has been shut down permanently, another was shut down for a period of months and has since restarted, and other customers have taken or are expected to take voluntary downtime to install new abatement equipment. The installation of the new abatement equipment is being done ahead of what is expected to be changes in the EPA regulations. The Company remains confident that the sterilization industry will be able to install abatement equipment to satisfy the new forthcoming EPA requirements. The Company is working with various stakeholders to ensure the EPA considers all available assessments to appropriately quantify ethylene oxide's risks. While the Company believes that EPA will, as it has in the past, ultimately regulate to lower emissions levels based on a combined consideration of the various assessments available and that industry will then adopt practices and procedures to ensure compliance with these new regulations, there is no assurance that this will be the case. Further, additional regulatory requirements associated with the use and emission of ethylene oxide may be imposed in the future, both within and outside of the U.S. Such increased regulation could require our

customers to temporarily suspend operations to install additional fugitive emissions control technology, limit the use of ethylene oxide or take other actions which, in turn, could impact our business, financial condition or results of operations.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our corporate headquarters is located in Montvale, New Jersey. Our operations are conducted at our owned and leased facilities throughout the U.S. and other foreign countries. These facilities house manufacturing and warehousing operations, as well as administrative offices. We have a total of 37 locations across the world and some of these manufacturing and warehousing locations serve multiple segments.

The following is a summary of our principal properties:

Segment	Location	Administrative	Manufacturing	Warehousing
Corporate	5 U.S. cities	5	-	-
HNH	15 U.S. cities and 5 foreign countries	1	15	4
ANH	6 U.S. cities and 4 foreign countries	-	9	1
Specialty Products	5 U.S. cities and 7 foreign countries	2	9	1
Other	2 U.S. cities and 1 foreign country	-	3	-

We believe that our production facilities and related machinery and equipment are well maintained, suitable for their purpose, and adequate to support our businesses.

Item 3. Legal Proceedings

In the normal course of business, we are involved in a variety of lawsuits, claims and legal proceedings, from time to time, including commercial and contract disputes, labor and employment matters, product liability claims, environmental liabilities, trade regulation matters, intellectual property disputes and tax-related matters. In our opinion, pending legal matters are not expected to have a material adverse effect on our consolidated financial position, results of operations, liquidity or cash flows.

Item 4. Mine Safety Disclosures

Not applicable.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

The following is a list of executive officers of the Company as of February 24, 2023.

Theodore L. Harris, age 57, has served as our Chairman, President and Chief Executive Officer since 2017.

C. Martin Bengtsson, age 46, has served as our Executive Vice President and Chief Financial Officer since February 2019. Prior to that, he served as Vice President and Chief Financial Officer for the Performance Materials and Technologies business unit of Honeywell International, a diversified technology and manufacturing company, from April 2018 to January 2019, and Vice President and Chief Financial Officer for the Advanced Materials unit of Honeywell International from August 2016 to April 2018.

Hatsuki Miyata, age 47, has served as our Executive Vice President, General Counsel and Secretary since July 2022. Ms. Miyata previously served as Deputy General Counsel and Corporate Secretary at Allegion plc, a global manufacturing company in seamless access and security products, from October 2018 to July 2022. Prior to that, she held various responsibilities in the Corporate & Securities Group at The Procter & Gamble Company, a global consumer products company, from October 2016 to September 2018.

Frederic Boned, age 45, has served as our Senior Vice President and General Manager, Human Nutrition and Health, since November 2022. Prior to that, he served as Regional Vice President, Health Nutrition and Care – North America from January 2022 to November 2022, Vice President, Human Nutrition and Health – North America from September 2018 to January 2022, and Vice President, Human Nutrition and Health – EMEA from January 2018 to September 2018, each at DSM, a multinational corporation in the fields of health and nutrition.

Jonathan H. Griffin, age 47, has served as our Senior Vice President and General Manager, Animal Nutrition and Health, since September 2022. Prior to that, he led that business segment as our Vice President and General Manager, Animal Nutrition and Health from 2016 to September 2022.

Martin L. Reid, age 56, has served as our Senior Vice President and Chief Supply Chain Officer since September 2022. Prior to that, he served as Vice President and Chief Supply Chain Officer from January 2021 to September 2022. Mr. Reid served as Chief Supply Chain Officer at Godiva Chocolate from May 2019 to December 2020, and as Vice President, Supply Chain – North America Manufacturing at The Estee Lauder Companies, Inc., a multinational cosmetics company, prior to that.

Michael R. Sestrick, Ph.D., age 59, has served as our Senior Vice President and Chief Technology Officer since September 2022. Prior to that he served as our Vice President and Chief Technology officer from April 2017 to September 2022.

M. Brent Tignor, age 45, has served as our Senior Vice President and Chief Human Resources Officer since September 2022. Prior to that, he led the Human Resources department as our Vice President and Chief Human Resources Officer from February 2022 to September 2022 and as our Vice President, Human Resources from 2016 to February 2022.

Job L. van Gunsteren, age 47, has served as our Senior Vice President and General Manager, Specialty Products, since September 2022. Prior to that, he served as our Vice President and General Manager, Specialty Products from August 2020 to September 2022 and as our Director for Animal Nutrition and Health – EMEA from 2013 to 2020.

All above-listed officers except for Mr. Bengtsson, Ms. Miyata, Mr. Boned, and Mr. Reid have been employed by the Company for more than the past five years. No family relationship exists between any of the above-listed executive officers of the Company. All officers are elected to hold office for one year or until their successors are elected and qualified or their earlier death, resignation or removal from office by the Board of Directors of the Company.

PART II

Item 5. Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

The Common Stock is listed on the Nasdaq Stock Market LLC under the symbol "BCPC."

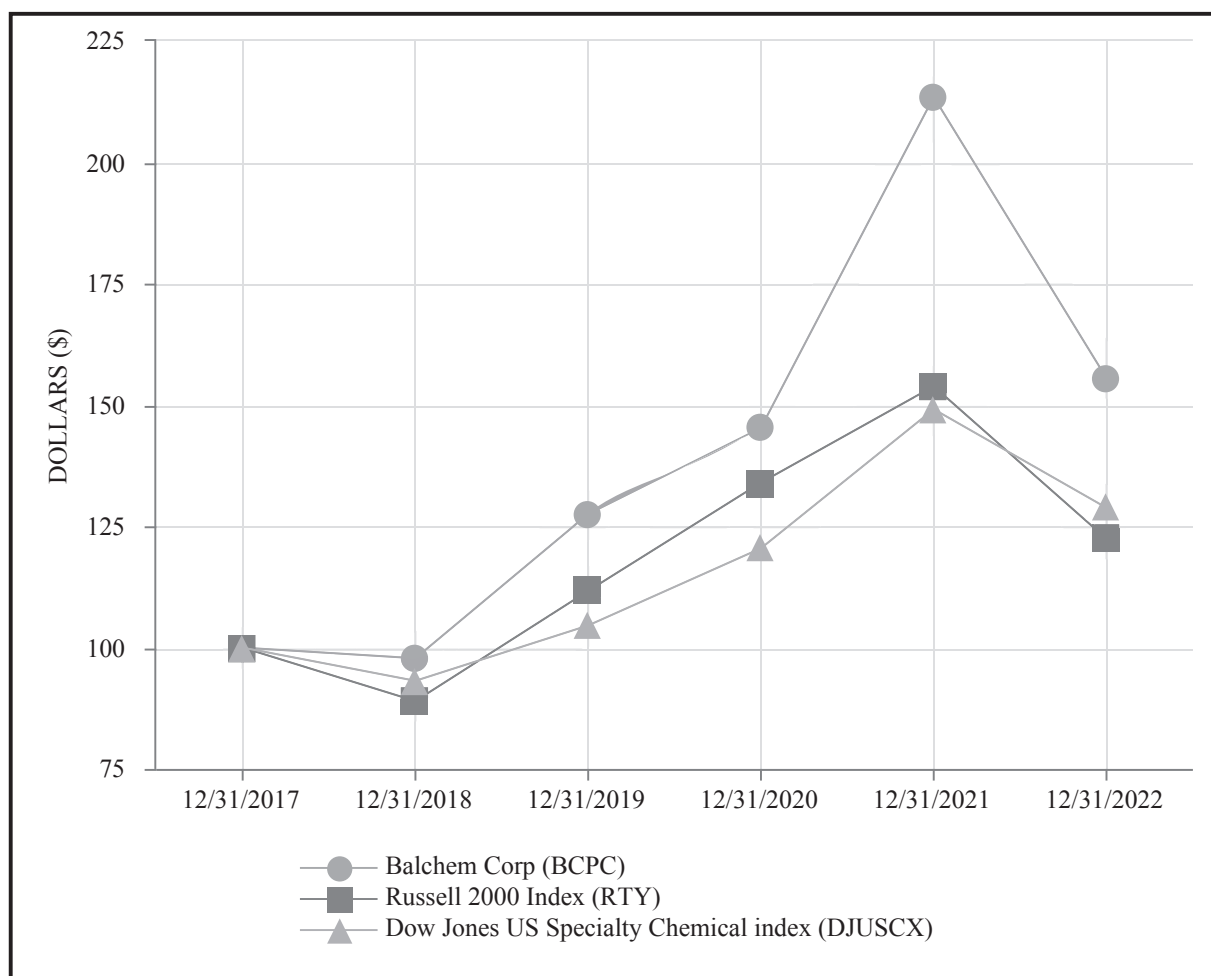
On February 10, 2023, the closing price for the Common Stock on the Nasdaq Stock Market LLC was \$133.75.

Record Holders

As of February 10, 2023, the approximate number of holders of record of Common Stock was 64. Such number does not include stockholders who hold their stock in street name.

Performance Graph

The graph below sets forth the cumulative total stockholder return on the Common Stock (referred to in the table as “BCPC”) for the five years ended December 31, 2022, the overall stock market return during such period for shares comprising the Russell 2000® Index (which we believe includes companies with market capitalization similar to that of us), and the overall stock market return during such period for shares comprising the Dow Jones U.S. Specialty Chemicals Index, in each case assuming a comparable initial investment of \$100 on December 31, 2017 and the subsequent reinvestment of dividends. The Russell 2000® Index measures the performance of the shares of the 2000 smallest companies included in the Russell 3000® Index. In light of our industry segments, we do not believe that published industry-specific indices are necessarily representative of stocks comparable to us. Nevertheless, we consider the Dow Jones U.S. Specialty Chemicals Index to be potentially useful as a peer group index with respect to us. The performance of the Common Stock shown on the graph below is historical only and not necessarily indicative of future performance.



Issuer Purchase of Equity Securities

The following table summarizes the share repurchase activity for the year ended December 31, 2022:

	Total Number of Shares Purchased ⁽¹⁾	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Programs ⁽¹⁾	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs
January 1-31, 2022	88,154	\$ 147.03	88,154	\$ 125,951,395
February 1-28, 2022	57,531	\$ 139.75	57,531	\$ 111,675,367
March 1-31, 2022	100,000	\$ 135.98	100,000	\$ 95,065,135
First Quarter	<u>245,685</u>		<u>245,685</u>	
April 1-30, 2022	245	\$ 125.36	245	\$ 87,609,591
May 1-31, 2022	4,550	\$ 120.01	4,550	\$ 83,324,693
June 1-30, 2022	181	\$ 125.87	181	\$ 83,370,521
Second Quarter	<u>4,976</u>		<u>4,976</u>	
July 1-31, 2022	—	\$ —	—	\$ 83,370,521
August 1-31, 2022	361	\$ 127.77	361	\$ 88,643,248
September 1-30, 2022	—	\$ —	—	\$ 88,643,248
Third Quarter	<u>361</u>		<u>361</u>	
October 1-31, 2022	831	\$ 139.80	831	\$ 96,873,152
November 1-30, 2022	399	\$ 140.03	399	\$ 96,978,739
December 1-31, 2022	52	\$ 121.77	52	\$ 84,324,507
Fourth Quarter	<u>1,282</u>		<u>1,282</u>	
Total	<u>252,304</u>		<u>252,304</u>	

⁽¹⁾ Our Board of Directors has approved a stock repurchase program. The total authorization under this program is 3,763,038 shares. Since the inception of the program in June 1999, a total of 3,070,548 shares have been repurchased. There is no expiration for this program.

Item 6. [Reserved]

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

(All amounts in thousands, except share and per share data)

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our Consolidated Financial Statements and the related notes included in this report. Refer to Part II, Item 7 in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021 (filed with the SEC on February 24, 2022) for additional discussion of our financial condition and results of operations for the year ended December 31, 2020. In addition, discussion of year-to-year comparisons between 2021 and 2020 are not included in this Annual Report on Form 10-K, and can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of the Company's Annual Report on Form 10-K for the year ended December 31, 2021. Those statements in the following discussion that are not historical in nature should be considered to be forward-looking statements that are inherently uncertain. See "Cautionary Statement Regarding Forward-Looking Statements."

Overview

We develop, manufacture, distribute and market specialty performance ingredients and products for the nutritional, food, pharmaceutical, animal health, medical device sterilization, plant nutrition and industrial markets. Our three reportable segments are strategic businesses that offer products and services to different markets: Human Nutrition and Health, Animal Nutrition and Health, and Specialty Products, as more fully described in Note 11, Segment Information, of the consolidated financial statements. Sales and production of products outside of our reportable segments and other minor business activities are included in "Other and Unallocated".

COVID-19

Our COVID-19 response has focused on employee safety first, keeping our manufacturing sites operational, satisfying customer needs, preserving cash and ensuring strong liquidity, and responding to changes in this dynamic market environment as appropriate.

Our manufacturing sites have been operating at near normal conditions, our research and development teams have continued to innovate in our laboratories, and all of our other employees have been effectively carrying on their responsibilities in a hybrid setting.

The COVID-19 pandemic continued to negatively affect the global economy and the markets we operate in during 2022. We experienced severe input cost inflation, raw material shortages, logistics disruptions, and labor availability issues throughout the year. Some of these indirect pandemic-related challenges eased slightly during the second half of 2022, however these challenges are likely to continue for some time.

Segment Results

We sell products for all three segments through our own sales force, independent distributors, and sales agents.

The following tables summarize consolidated net sales by segment and business segment earnings from operations for the three years ended December 31, 2022, 2021 and 2020 (in thousands):

Business Segment Net Sales

	2022	2021	2020
Human Nutrition and Health	\$ 527,131	\$ 442,733	\$ 400,330
Animal Nutrition and Health	262,297	226,776	192,191
Specialty Products	131,438	117,020	103,566
Other and Unallocated ⁽¹⁾	21,492	12,494	7,557
Total	\$ 942,358	\$ 799,023	\$ 703,644

Business Segment Earnings From Operations

	2022	2021	2020
Human Nutrition and Health	\$ 82,125	\$ 76,031	\$ 61,397
Animal Nutrition and Health	36,056	26,179	29,979
Specialty Products	32,789	30,020	26,801
Other and Unallocated ⁽¹⁾	(5,784)	(4,728)	(7,030)
Total	\$ 145,186	\$ 127,502	\$ 111,147

⁽¹⁾ Other and Unallocated consists of a few minor businesses which individually do not meet the quantitative thresholds for separate presentation and corporate expenses that have not been allocated to a segment. Unallocated corporate expenses consist of: (i) Transaction and integration costs, ERP implementation costs, and unallocated legal fees totaling \$3,581, \$1,264 and \$2,410 for years ended December 31, 2022, 2021 and 2020, respectively, and (ii) Unallocated amortization expense of \$2,951, \$2,510, and \$1,606 for years ended December 31, 2022, 2021, and 2020, respectively, related to an intangible asset in connection with a company-wide ERP system implementation.

Acquisitions

On August 30, 2022, we completed the acquisition of Bergstrom, a leading science-based manufacturer of methylsulfonylmethane ("MSM"), based in Vancouver, Washington, and on June 21, 2022, we completed the acquisition of Kappa, a leading science-based manufacturer of specialty vitamin K2 for the human nutrition industry, headquartered in Oslo, Norway. Details related to both acquisitions are disclosed in Note 2, Significant Acquisitions, and the "Acquisitions" section in Item 1. Business.

Results of Operations - Fiscal Year 2022 compared to Fiscal Year 2021

Summary of Consolidated Statements of Earnings

<i>(in thousands)</i>	2022	2021	Increase (Decrease)	% Change
Net sales	\$ 942,358	\$ 799,023	\$ 143,335	17.9 %
Gross margin	280,451	243,174	37,277	15.3 %
Operating expenses	135,265	115,672	19,593	16.9 %
Earnings from operations	145,186	127,502	17,684	13.9 %
Other expenses	11,437	2,269	9,168	404.1 %
Income tax expense	28,382	29,129	(747)	(2.6)%
Net earnings	<u>\$ 105,367</u>	<u>\$ 96,104</u>	<u>\$ 9,263</u>	9.6 %

Management's discussion and analysis of the Consolidated Statements of Earnings is included below:

Net Sales

<i>(in thousands)</i>	2022	2021	Increase (Decrease)	% Change
Human Nutrition and Health	\$ 527,131	\$ 442,733	\$ 84,398	19.1 %
Animal Nutrition and Health	262,297	226,776	35,521	15.7 %
Specialty Products	131,438	117,020	14,418	12.3 %
Other	21,492	12,494	8,998	72.0 %
Total	<u>\$ 942,358</u>	<u>\$ 799,023</u>	<u>\$ 143,335</u>	17.9 %

- The increase in net sales within the Human Nutrition and Health segment for 2022 compared to 2021 was primarily attributed to sales growth within food and beverage markets, the contribution from recent acquisitions, as well as higher sales within the minerals and nutrients business, partially offset by an unfavorable impact related to change in foreign currency exchange rates. Total sales for this segment grew 19.1%, with average selling prices contributing 17.2%, volume and mix contributing 2.2%, and the change in foreign currency exchange rates contributing -0.3%.
- The increase in net sales within the Animal Nutrition and Health segment for 2022 compared to 2021 was primarily the result of higher sales in monogastric and ruminant species markets, partially offset by an unfavorable impact related to changes in foreign currency exchange rates. Total sales for this segment grew 15.7%, with average selling prices contributing 25.5%, the change in foreign currency exchange rates contributing -3.3%, and volume and mix contributing -6.5%.
- The increase in Specialty Products segment sales for 2022 compared to 2021 was primarily due to higher sales of performance gases and plant nutrition sales, partially offset by an unfavorable impact related to changes in foreign currency exchange rates. Total sales for this segment grew 12.3%, with average selling prices contributing 16.9%, volume and mix contributing -1.5%, and the change in foreign currency exchange rates contributing -3.1%.
- Sales relating to Other increased from the prior year primarily due to higher demand.
- Sales may fluctuate in future periods based on macroeconomic conditions, competitive dynamics, changes in customer preferences, and our ability to successfully introduce new products to the market.

Gross Margin

<i>(in thousands)</i>	2022	2021	Increase (Decrease)	% Change
Gross margin	\$ 280,451	\$ 243,174	\$ 37,277	15.3 %
% of net sales	29.8 %	30.4 %		

Gross margin dollars increased for 2022 compared to 2021 due to the aforementioned higher sales of \$143,335, partially offset by an increase in cost of goods sold of \$106,058. The 19.1% increase in cost of goods sold was mainly driven by the higher sales and significant inflation of manufacturing input costs, primarily related to raw materials. Price increases lagged this inflation, leading to a 60 basis point decrease in gross margin as a percentage of sales.

Operating Expenses

<i>(in thousands)</i>	2022	2021	Increase (Decrease)	% Change
Operating expenses	\$ 135,265	\$ 115,672	\$ 19,593	16.9 %
% of net sales	14.4 %	14.5 %		

The increase in operating expenses was primarily due to incremental operating expenses related to the acquisitions of \$6,804, an increase in outside services of \$6,265, and higher compensation-related costs of \$2,931.

Earnings From Operations

<i>(in thousands)</i>	2022	2021	Increase (Decrease)	% Change
Human Nutrition and Health	\$ 82,125	\$ 76,031	\$ 6,094	8.0 %
Animal Nutrition and Health	36,056	26,179	9,877	37.7 %
Specialty Products	32,789	30,020	2,769	9.2 %
Other and unallocated	(5,784)	(4,728)	(1,056)	(22.3)%
Earnings from operations	<u>\$ 145,186</u>	<u>\$ 127,502</u>	<u>\$ 17,684</u>	13.9 %
% of net sales (operating margin)	15.4 %	16.0 %		

- Earnings from operations for the Human Nutrition and Health segment increased primarily due to the aforementioned higher sales, partially offset by a 140 basis point decrease in gross margin as a percentage of sales, primarily due to a significant increase in certain manufacturing input costs, largely related to raw materials. Additionally, operating expenses for this segment increased by \$12,629, primarily due to incremental operating expenses related to the acquisitions of \$6,654 and outside services of \$3,831.
- Animal Nutrition and Health segment earnings from operations increased primarily due to the aforementioned higher sales and a 130 basis point increase in gross margin as a percentage of sales primarily related to higher average selling prices, partially offset by a significant increase in certain manufacturing input costs, largely related to raw materials. Additionally, operating expenses for this segment increased by \$1,596, primarily related to higher outside services of \$1,084.
- The increase in earnings from operations for the Specialty Products segment was primarily due to the aforementioned higher sales, partially offset by a 140 basis point decrease in gross margin as a percentage of sales, primarily due to a significant increase in certain manufacturing input costs, largely related to raw materials. Additionally, operating expenses for this segment increased by \$2,276, primarily related to higher compensation-related costs of \$1,586 and higher outside services of \$1,264, partially offset by lower amortization of \$697.
- Earnings from operations relating to Other and unallocated decreased from the prior year primarily due to an increase in transaction costs, mainly related to the acquisitions, partially offset by the aforementioned higher sales.

Other Expenses (Income)

<i>(in thousands)</i>	2022	2021	Increase (Decrease)	% Change
Interest expense, net	\$ 10,268	\$ 2,456	\$ 7,812	318.1 %
Other, net	1,169	(187)	1,356	(725.1)%
	<u>\$ 11,437</u>	<u>\$ 2,269</u>	<u>\$ 9,168</u>	<u>404.1 %</u>

Interest expense for 2022 and 2021 was primarily related to outstanding borrowings under the 2022 Credit Agreement and the 2018 Credit Agreement, respectively. The increase in interest expense is due to the additional borrowings in connection with the acquisitions and rising interest rates.

Income Tax Expense

<i>(in thousands)</i>	2022	2021	Increase (Decrease)	% Change
Income tax expense	\$ 28,382	\$ 29,129	\$ (747)	(2.6)%
Effective tax rate	21.2 %	23.3 %		

The decrease in the effective tax rate was primarily due to an increase in certain tax credits and deductions and certain lower state taxes.

Liquidity and Capital Resources

(All amounts in thousands, except share and per share data)

Contractual Obligations

Our short-term purchase obligations primarily include contractual arrangements in the form of purchase orders with suppliers. As of December 31, 2022, such purchase obligations were \$69,269. For debt obligations, see Note 8, Revolving Loan, and for operating and finance lease obligations, see Note 19, Leases.

The contractual obligations exclude a \$5,815 liability for uncertain tax positions, including the related interest and penalties, recorded in accordance with ASC 740-10, as we are unable to reasonably estimate the timing of settlement, if any.

We know of no current or pending demands on, or commitments for, our liquid assets that will materially affect our liquidity.

During the twelve months ending December 31, 2022, we drew down \$345,000 and \$70,000 from our revolving credit facility to fund the acquisitions of Kappa and Bergstrom, respectively. Depending on whether financial and other targets are met, we may be required to pay contingent consideration liabilities in connection with the recent acquisitions in 2024. These liabilities are valued at \$11,400 as of December 31, 2022 (see Note 2, Significant Acquisitions). Excluding the events previously mentioned, there were no other material changes during the year ended December 31, 2022 outside the ordinary course of business in the specified contractual obligations set forth in our Annual Report on Form 10-K for the year ended December 31, 2021. On July 27, 2022, we entered into an Amended and Restated Credit Agreement with a bank syndicate providing for a revolving loan of \$550,000, due July 27, 2027. The revolving loan proceeds were used to pay down the existing debt under the 2018 Credit Agreement and may be used for working capital, letters of credit, and other corporate purposes.

We expect our operations to continue generating sufficient cash flow to fund working capital requirements and necessary capital investments. We are actively pursuing additional acquisition candidates. We could seek additional bank loans or access to financial markets to fund such acquisitions, our operations, working capital, necessary capital investments or other cash requirements should we deem it necessary to do so.

Cash

Cash and cash equivalents decreased to \$66,560 at December 31, 2022 from \$103,239 at December 31, 2021. At December 31, 2022, we had \$47,526 of cash and cash equivalents held by our foreign subsidiaries. We presently intend to permanently reinvest these funds in foreign operations by continuing to make additional plant related investments, and potentially invest in partnerships or acquisitions; therefore, we do not currently expect to repatriate these funds in order to fund U.S. operations or obligations. However, if these funds are needed for U.S. operations, we could be required to pay additional withholding taxes to repatriate these funds. Working capital was \$195,761 at December 31, 2022 as compared to \$178,430 at December 31, 2021, an increase of

\$17,331. Cash at December 31, 2022 reflects the payment of the 2021 declared dividend in 2022 of \$20,713, payments on the revolving loan and acquired debt of \$133,988, capital expenditures and intangible assets acquired of \$50,290, and common stock repurchases of \$35,423.

<i>(in thousands)</i>	2022	2021	Increase (Decrease)	% Change
Cash flows provided by operating activities	\$ 138,536	\$ 160,514	\$ (21,978)	(13.7)%
Cash flows used in investing activities	(416,014)	(35,300)	(380,714)	1078.5 %
Cash flows provided by (used in) financing activities	246,679	(102,178)	348,857	(341.4)%

Operating Activities

The decrease in cash flows from operating activities was primarily driven by changes in working capital.

Investing Activities

As previously noted, on June 21, 2022, we completed the acquisition of Kappa, a leading science-based manufacturer of specialty vitamin K2 for the human nutrition industry, headquartered in Oslo, Norway, and on August 30, 2022, we completed the acquisition of Bergstrom, a leading science-based manufacturer of MSM, based in Vancouver, Washington. Cash paid for these acquisitions, net of cash acquired, amounted to \$365,780.

We continue to invest in corporate projects, improvements across all production facilities, and intangible assets. Total investments in property, plant and equipment and intangible assets were \$50,290 and \$37,449 for the years ended December 31, 2022 and 2021, respectively. As of December 31, 2022, capital expenditures are projected to be approximately \$40,000 to \$50,000 for 2023. As mentioned above, we expect that our operations will continue to generate sufficient cash flow to fund the commitments for capital expenditures. These capital expenditures are part of our continuous efforts to support our growing businesses.

Financing Activities

The acquisitions of Kappa and Bergstrom were funded through our credit agreements (see Note 8, Revolving Loan). We borrowed \$435,000 under our credit agreements and made total loan payments of \$103,000 during the year ended December 31, 2022, resulting in \$109,431 available under the 2022 Credit Agreement as of December 31, 2022. We also made payments of \$30,988 on the acquired debt related to the acquisitions.

We have an approved stock repurchase program. The total authorization under this program is 3,763,038 shares. Since the inception of the program in June 1999, a total of 3,070,548 shares have been repurchased. We repurchase shares from employees in connection with settlement of transactions under our equity incentive plans. We also intend to acquire shares from time to time at prevailing market prices if and to the extent we deem it is advisable to do so based on our assessment of corporate cash flow, market conditions and other factors.

Proceeds from stock options exercised were \$3,212 and \$6,943 for the years ended December 31, 2022 and 2021, respectively. Dividend payments were \$20,713 and \$18,723 during 2022 and 2021, respectively.

Other Matters Impacting Liquidity

We currently provide postretirement benefits in the form of two retirement medical plans, as discussed in Note 15, Employee Benefit Plans. The liability recorded in other long-term liabilities on the consolidated balance sheets as of December 31, 2022 and December 31, 2021 was \$1,465 and \$1,293, respectively, and the plans are not funded. Historical cash payments made under these plans have typically been less than \$200 per year. We do not anticipate any changes to the payments made in the current year for the plans.

On June 1, 2018, we established an unfunded, nonqualified deferred compensation plan maintained for the benefit of a select group of management or highly compensated employees. Assets of the plan are held in a rabbi trust, which are included in non-current assets on our balance sheet. They are subject to additional risk of loss in the event of bankruptcy or insolvency of the Company. The deferred compensation liability as of December 31, 2022 and December 31, 2021 was \$8,543 and \$6,270, respectively, and is included in other long-term obligations on our balance sheet. The related rabbi trust assets were \$8,547 and

\$6,267 as of December 31, 2022 and December 31, 2021, respectively, and were included in "other non-current assets" on the condensed consolidated balance sheets.

Chemogas has an unfunded defined benefit plan. The plan provides for the payment of a lump sum at retirement or payments in case of death of the covered employees. The amount recorded for these obligations on our balance sheet as of December 31, 2022 and December 31, 2021 was \$393 and \$684, respectively, and was included in other long-term obligations.

Related Party Transactions

We were engaged in related party transactions with St. Gabriel CC Company, LLC for the years ended December 31, 2022 and December 31, 2021. Refer to Note 18, Related Party Transactions.

Critical Accounting Estimates

Critical accounting estimates are those estimates made in accordance with generally accepted accounting principles that involve a significant level of estimation uncertainty and have had or are reasonably likely to have a material impact on our financial condition or results of operations. Our management is required to make these critical accounting estimates and assumptions during the preparation of consolidated financial statements in accordance with accounting principles generally accepted in the United States of America. These estimates and assumptions impact the reported amount of assets and liabilities and disclosures of contingent assets and liabilities as of the date of the consolidated financial statements. Estimates and assumptions are reviewed periodically, and the effects of revisions are reflected in the consolidated financial statements in the period they are determined to be necessary. Actual results could differ from those estimates.

Our critical accounting estimates are those that require application of management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain and that may change in subsequent periods. Management considers the following to be critical accounting estimates.

Goodwill and Intangible Assets

The valuation methods and assumptions used in valuing goodwill and identified intangibles and assessing the impairment of goodwill and identified intangibles involves a significant level of estimation uncertainty. In addition, the assumptions used in determining the useful life of an intangible asset involves a significant level of estimation uncertainty. Refer to the Goodwill and Acquired Intangible Assets section in Note 1, Business Description and Summary of Significant Accounting Policies, for details related to the valuation and impairment process of both goodwill and intangible assets. Changes in market conditions, laws and regulations, and key assumptions made in future quantitative assessments, including expected cash flows, competitive factors and discount rates, could result in the recognition of an impairment charge, and in turn could have a material impact on our financial condition or results of operations in subsequent periods.

Contingent Consideration Liabilities

In connection with recent acquisitions (see Note 2, Significant Acquisitions), the sellers of each of the acquired entities have an opportunity to receive an additional payment if certain financial performance targets and other metrics are met, thereby requiring us to record contingent consideration liabilities on our balance sheet. The valuation methods and assumptions used in assessing the contingent consideration liabilities involve a significant level of estimation uncertainty. The value of the contingent consideration liability could change depending on the performance results of the acquired entities, resulting in additional expenses or income, and in turn could have a material impact on our financial condition or results of operations in subsequent periods.

Income Taxes

The valuation methods and assumptions used in calculating income taxes, deferred tax assets and liabilities, and valuation allowances involve a significant level of estimation uncertainty. Refer to the Income Taxes in Note 1, Business Description and Summary of Significant Accounting Policies, for details. Changes in the assumptions such as our forecast of future market growth, forecasted earnings, future taxable income, and prudent and feasible tax planning strategies could result in income taxes adjustments, and in turn could have a material impact on our financial condition or results of operations in subsequent periods.

Significant Accounting Policies and Recent Accounting Pronouncements

See Note 1, Business Description and Summary of Significant Accounting Policies, in Notes to Consolidated Financial Statements regarding significant accounting policies and recent accounting pronouncements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Our cash and cash equivalents are held primarily in certificates of deposit and money market investment funds. In 2019, we entered into an interest rate swap and cross-currency swap for hedging purposes. Refer to details noted below (see Note 20, Derivative Instruments and Hedging Activities). Additionally, as of December 31, 2022, our borrowings were under a revolving loan bearing interest at a fluctuating rate as defined by the Credit Agreement plus an applicable rate (see Note 8, Revolving Loan). The applicable rate is based upon our consolidated net leverage ratio, as defined in the Credit Agreement. A 100 basis point increase or decrease in interest rates, applied to our borrowings at December 31, 2022, would result in an increase or decrease in annual interest expense and a corresponding reduction or increase in cash flow of approximately \$4,406. We are exposed to commodity price risks, including prices of our primary raw materials. Our objective is to seek a reduction in the potential negative earnings impact of raw material pricing arising in our business activities. We manage these financial exposures, where possible, through pricing and operational means. Our practices may change as economic conditions change.

Interest Rate Risk

We have exposure to market risk for changes in interest rates, including the interest rate relating to our credit agreement dated July 27, 2022 (see Note 8, Revolving Loan). In 2019, we began to manage our interest rate exposure through the use of derivative instruments. All of our derivative instruments are utilized for risk management purposes, and are not used for trading or speculative purposes. We have hedged a portion of our floating interest rate exposure using an interest rate swap (see Note 20, Derivative Instruments and Hedging Activities). As of December 31, 2022, the notional amount of our outstanding interest rate swap was \$108,569.

Foreign Currency Exchange Risk

The financial condition and results of operations of our foreign subsidiaries are reported in local currencies and then translated into U.S. dollars at the applicable currency exchange rate for inclusion in our consolidated financial statements. Therefore, we are exposed to foreign currency exchange risk related to these currencies. In 2019, we entered into a cross-currency swap, with a notional amount of \$108,569, which we designated as a hedge of our net investment in Chemogas (see Note 20, Derivative Instruments and Hedging Activities).

Item 8. Financial Statements and Supplementary Data

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<u>Consolidated Balance Sheets as of December 31, 2022 and 2021</u>	<u>31</u>
<u>Consolidated Statements of Earnings for the years ended December 31, 2022, 2021 and 2020</u>	<u>32</u>
<u>Consolidated Statements of Comprehensive Income for the years ended December 31, 2022, 2021 and 2020</u>	<u>33</u>
<u>Consolidated Statements of Stockholders' Equity for the years ended December 31, 2022, 2021 and 2020</u>	<u>34</u>
<u>Consolidated Statements of Cash Flows for the years ended December 31, 2022, 2021 and 2020</u>	<u>35</u>
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Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Balchem Corporation

Opinions on the Financial Statements and Internal Control Over Financial Reporting

We have audited the accompanying consolidated balance sheets of Balchem Corporation and subsidiaries (the Company) as of December 31, 2022 and 2021, and the related consolidated statements of earnings, comprehensive income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2022, and the related notes and schedule listed at Item 8 (collectively, the financial statements). We also have audited the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013.

As described in Management's Report on Internal Control Over Financial Reporting, management has excluded Kechu BidCo AS and its subsidiaries (Kappa) and Cardinal Associates, Inc. (Bergstrom) from its assessment of internal control over financial reporting as of December 31, 2022, because they were acquired by the Company in purchase business combinations in the second and third quarters, respectively, of 2022. We have also excluded Kappa and Bergstrom from our audit of internal control over financial reporting. Kappa and Bergstrom are wholly owned subsidiaries whose total assets and net sales collectively represent approximately 24.5 percent and 2.4 percent, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2022.

Basis for Opinions

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

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

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

Definition and Limitations of Internal Control Over Financial Reporting

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

reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company's assets that could have a material effect on the financial statements.

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

Critical Audit Matters

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

Valuation of customer relationships, technology and contingent consideration related to acquisitions

As described in Note 2 to the financial statements, the Company completed two acquisitions during the year, acquiring Kechu BidCo AS and its subsidiaries (collectively, Kappa) in June 2022 and Cardinal Associates Inc. and its Bergstrom Nutrition business (collectively, Bergstrom) in August 2022. The total consideration on acquisition date for Kappa amounted to \$307 million, which included an estimated acquisition-date fair value contingent consideration of \$4 million. The total consideration on acquisition date for Bergstrom amounted to \$78 million, which included an estimated acquisition-date fair value contingent consideration of \$8 million. The respective contingent consideration may be paid if certain targets are achieved in 2023. The acquisition-date fair values of the contingent consideration liabilities were estimated using a scenario-based approach, estimating the expected payments based on the likelihood of achieving the respective targets. In connection with the acquisitions of Kappa and Bergstrom, the Company acquired customer relationships with acquisition-date fair values of \$89 million and \$30 million, respectively, and technology with acquisition-date fair values of \$16 million and \$5 million, respectively. For both acquisitions, management used the multi-period excess earnings method, a form of the income valuation approach, to determine the respective fair values of the customer relationships acquired and the relief from royalty method to determine the respective fair values of the technology acquired.

In estimating the acquisition-date fair values of the contingent consideration, customer relationships and technology, management was required to make significant judgments in formulating the significant estimates and assumptions about future sales and operating expenses, probability of certain financial forecast scenarios, attrition rates, obsolescence curves, growth rates, royalty rates, and discount rates when utilizing the aforementioned valuation methods.

We identified the Company's valuation of the contingent consideration, customer relationships, and technology related to the acquisitions of Kappa and Bergstrom as a critical audit matter due to the high degree of auditor judgment, subjectivity, and audit effort, including the use of our fair value specialists, involved in performing procedures and evaluating audit evidence related to significant estimates and assumptions utilized by management, including sales, operating expenses, attrition rates, obsolescence curves, growth rates, royalty rates, and discount rates, when calculating the fair values of the contingent consideration, customer relationships, and technology.

Our audit procedures related to the Company's valuation of the contingent consideration, customer relationships, and technology in connection with the aforementioned acquisitions included the following, among others:

- We obtained an understanding of the relevant controls related to the valuation of the contingent consideration, customer relationships, and technology and tested such controls for design and operating effectiveness, including management review controls related to the development of significant assumptions including future sales and operating expenses, attrition rates, obsolescence curves, growth rates, royalty rates and discount rates.
- We evaluated the reasonableness of management's forecasts of sales and operating expense growth rates and attrition rates by comparing the forecasts to (1) the historical results (2) internal communications to management and the Board of Directors, and (3) external communications made by management to analysts and investors, as applicable.
- We evaluated the reasonableness of management's determination of useful lives.
- With the assistance of our fair value specialists, we evaluated the reasonableness of the discount rates, royalty rates, and the probability of certain financial forecast scenarios, and tested the relevance and reliability of source information underlying the determination of the discount rates and royalty rates, and developed a range of independent estimates, which we compared to the discount rates, royalty rates and the contingent consideration fair value arrived at by management.

Valuation of Reporting Units for Goodwill Impairment Testing

As described in Note 1 and 6 to the financial statements, the Company's goodwill balance was \$770 million as of December 31, 2022. The Company performed an annual goodwill impairment test as of October 1, 2022 using a quantitative evaluation for each of its reporting units. The Company determines the fair value of its reporting units using the income approach, based on a discounted cash flow valuation model. To test for goodwill impairment, the Company compares the fair value of each reporting unit to its carrying value. When determining the fair value of each reporting unit, management makes significant estimates and assumptions related to a number of factors. The Company considers the impact of factors that are specific to each of the reporting units such as industry and economic changes as well as projected sales and expense growth rates based upon annual budgets and longer-range strategic plans, which are highly sensitive to changes in domestic and foreign economic conditions, and the selection of appropriate discount rates.

Given the significant estimates and assumptions management makes to determine the fair value of the reporting units and the sensitivity of the operations to changes in U.S. and foreign economic conditions, we identified management's assumptions related to the sales and expense growth rates, the discount rates, and the terminal value calculation utilized in the valuation of the reporting units within the Company's goodwill impairment tests as a critical audit matter. Auditing the reasonableness of management's estimates and assumptions required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists.

Our audit procedures related to sales and expense growth rates, discount rates, and the terminal value calculation utilized in the valuation of the Company's reporting units included the following, among others:

- We obtained an understanding of the relevant controls related to the valuation of the Company's reporting units and tested such controls for design and operating effectiveness, including management review controls related to sales and expense growth rates and the selection of appropriate discount rates.
- We evaluated the reasonableness of management's forecasted sales and expense growth rates by comparing actual results to management's historical forecasts.
- We evaluated the reasonableness of management's forecasts of sales and expense growth rates by comparing the forecasts to (1) the historical results, (2) internal communications to management and the Board of Directors, and (3) external communications made by management to analysts and investors, as applicable
- We evaluated changes in the regulatory environment using industry reports containing analysis of the Company's markets and assessed whether these changes were reflected in management's forecasts of sales and expense growth rates.
- With the assistance of our fair value specialists, we evaluated the reasonableness of the discount rates and tested the relevance and reliability of source information underlying the determination of the discount rates, tested the mathematical accuracy of the calculation, and developed a range of independent estimates and compared those to the discount rates selected by management.
- With the assistance of our fair value specialists, we evaluated the reasonableness and tested the mathematical accuracy of the terminal value calculation.

/s/ RSM US LLP

We have served as the Company's auditor since 2004.

New York, New York

February 24, 2023

BALCHEM CORPORATION
Consolidated Balance Sheets
December 31, 2022 and 2021
(Dollars in thousands, except share and per share data)

	<u>2022</u>	<u>2021</u>
Current assets:		
Cash and cash equivalents	\$ 66,560	\$ 103,239
Accounts receivable, net of allowance for doubtful accounts of \$1,226 and \$928 at December 31, 2022 and 2021, respectively	131,578	117,408
Inventories, net	119,668	91,058
Prepaid expenses	4,903	6,116
Derivative assets	5,993	—
Other current assets	7,101	4,411
Total current assets	335,803	322,232
Property, plant and equipment, net	271,355	237,517
Goodwill	769,509	523,949
Intangible assets with finite lives, net	213,295	94,665
Right of use assets - operating leases	17,094	6,929
Right of use assets - finance lease	2,338	2,359
Other assets	15,118	11,674
Total assets	\$ 1,624,512	\$ 1,199,325
Liabilities and Stockholders' Equity		
Current liabilities:		
Trade accounts payable	\$ 57,322	\$ 56,243
Accrued expenses	36,745	43,411
Accrued compensation and other benefits	16,544	19,567
Dividends payable	23,129	20,886
Income tax payable	2,280	1,334
Operating lease liabilities - current	3,796	2,194
Finance lease liabilities - current	226	167
Total current liabilities	140,042	143,802
Revolving loan	440,569	108,569
Deferred income taxes	62,784	46,455
Operating lease liabilities - non-current	13,806	4,811
Finance lease liabilities - non-current	2,213	2,303
Derivative liabilities	—	2,658
Other long-term obligations	26,814	13,712
Total liabilities	686,228	322,310
Commitments and contingencies (Note 16)		
Stockholders' equity:		
Preferred stock, \$25 par value. Authorized 2,000,000 shares; none issued and outstanding	—	—
Common stock, \$.0667 par value. Authorized 120,000,000 shares; 32,152,787 shares issued and outstanding at December 31, 2022 and 32,287,150 shares issued and outstanding at December 31, 2021, respectively	2,145	2,154
Additional paid-in capital	128,806	147,716
Retained earnings	814,487	732,138
Accumulated other comprehensive loss	(7,154)	(4,993)
Total stockholders' equity	938,284	877,015
Total liabilities and stockholders' equity	\$ 1,624,512	\$ 1,199,325

See accompanying notes to consolidated financial statements.

BALCHEM CORPORATION
Consolidated Statements of Earnings
Years Ended December 31, 2022, 2021 and 2020
(In thousands, except per share data)

	<u>2022</u>	<u>2021</u>	<u>2020</u>
Net sales	\$ 942,358	\$ 799,023	\$ 703,644
Cost of sales	661,907	555,849	479,747
Gross margin	280,451	243,174	223,897
Operating expenses:			
Selling expenses	67,409	60,413	58,630
Research and development expenses	12,191	13,524	10,332
General and administrative expenses	55,665	41,735	43,788
	<u>135,265</u>	<u>115,672</u>	<u>112,750</u>
Earnings from operations	145,186	127,502	111,147
Other expenses:			
Interest expense, net	10,268	2,456	4,439
Other, net	1,169	(187)	291
	<u>11,437</u>	<u>2,269</u>	<u>4,730</u>
Earnings before income tax expense	133,749	125,233	106,417
Income tax expense	28,382	29,129	21,794
Net earnings	<u>\$ 105,367</u>	<u>\$ 96,104</u>	<u>\$ 84,623</u>
Basic net earnings per common share	<u>\$ 3.29</u>	<u>\$ 2.98</u>	<u>\$ 2.63</u>
Diluted net earnings per common share	<u>\$ 3.25</u>	<u>\$ 2.94</u>	<u>\$ 2.60</u>

See accompanying notes to consolidated financial statements.

BALCHEM CORPORATION
Consolidated Statements of Comprehensive Income
Years Ended December 31, 2022, 2021 and 2020
(In thousands)

	<u>2022</u>	<u>2021</u>	<u>2020</u>
Net earnings	\$ 105,367	\$ 96,104	\$ 84,623
Other comprehensive (loss)/ income, net of tax:			
Net foreign currency translation adjustment	(4,799)	(11,255)	12,829
Unrealized gain/(loss) on cash flow hedge, net of taxes of \$868, \$654, and \$809 at December 31, 2022, 2021, and 2020, respectively	2,696	2,053	(2,285)
Net change in postretirement benefit plan, net of taxes of \$24, \$13, and \$127 at December 31, 2022, 2021 and 2020, respectively	(58)	36	(807)
Other comprehensive (loss)/ income, net of tax	<u>(2,161)</u>	<u>(9,166)</u>	<u>9,737</u>
Comprehensive income	<u>\$ 103,206</u>	<u>\$ 86,938</u>	<u>\$ 94,360</u>

See accompanying notes to consolidated financial statements.

BALCHEM CORPORATION
Consolidated Statements of Stockholders' Equity
Years Ended December 31, 2022, 2021 and 2020
(Dollars in thousands, except share and per share data)

	Total Stockholders' Equity	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Common Stock		Additional Paid-in Capital
				Shares	Amount	
Balance - December 31, 2019	\$ 743,667	\$ 590,921	\$ (5,564)	32,201,917	\$ 2,148	\$ 156,162
Net earnings	84,623	84,623	—	—	—	—
Other comprehensive income	9,737	—	9,737	—	—	—
Dividends (\$.58 per share)	(18,804)	(18,804)	—	—	—	—
Repurchases of common stock	(13,463)	—	—	(136,629)	(9)	(13,454)
Shares and options issued under stock plans	22,473	—	—	307,333	21	22,452
Balance - December 31, 2020	828,233	656,740	4,173	32,372,621	2,160	165,160
Net earnings	96,104	96,104	—	—	—	—
Other comprehensive (loss)	(9,166)	—	(9,166)	—	—	—
Dividends (\$.64 per share)	(20,706)	(20,706)	—	—	—	—
Repurchases of common stock	(35,239)	—	—	(249,848)	(17)	(35,222)
Shares and options issued under stock plans	17,789	—	—	164,377	11	17,778
Balance - December 31, 2021	877,015	732,138	(4,993)	32,287,150	2,154	147,716
Net earnings	105,367	105,367	—	—	—	—
Other comprehensive (loss)	(2,161)	—	(2,161)	—	—	—
Dividends (\$.71 per share)	(23,018)	(23,018)	—	—	—	—
Repurchases of common stock	(35,423)	—	—	(252,304)	(16)	(35,407)
Shares and options issued under stock plans	16,504	—	—	117,941	7	16,497
Balance - December 31, 2022	\$ 938,284	\$ 814,487	\$ (7,154)	32,152,787	\$ 2,145	\$ 128,806

See accompanying notes to consolidated financial statements.

BALCHEM CORPORATION
Consolidated Statements of Cash Flows
Years Ended December 31, 2022, 2021 and 2020
(In thousands)

	<u>2022</u>	<u>2021</u>	<u>2020</u>
Cash flows from operating activities:			
Net earnings	\$ 105,367	\$ 96,104	\$ 84,623
Adjustments to reconcile net earnings to net cash provided by operating activities:			
Depreciation and amortization	51,848	48,879	51,281
Stock compensation expense	13,224	10,802	8,303
Deferred income taxes	(8,362)	(5,944)	(4,627)
Provision for doubtful accounts	401	180	140
Unrealized loss/(gain) on foreign currency transactions and deferred compensation	914	(384)	173
Asset impairment charge	23	1,675	1,915
Loss/(gain) on disposal of assets	343	(1,728)	153
Changes in assets and liabilities, net of acquired balances			
Accounts receivable	(3,618)	(20,700)	(3,599)
Inventories	(7,804)	(21,023)	13,923
Prepaid expenses and other current assets	1,870	(881)	(2,856)
Accounts payable and accrued expenses	(15,543)	47,067	(992)
Income taxes	296	4,787	1,859
Other	(423)	1,680	198
Net cash provided by operating activities	138,536	160,514	150,494
Cash flows from investing activities:			
Cash paid for acquisitions, net of cash acquired	(365,780)	—	—
Capital expenditures and intangible assets acquired	(50,290)	(37,449)	(33,828)
Proceeds from sale of assets	206	318	87
Proceeds from insurance	—	1,831	—
Purchase of convertible notes	(150)	—	(850)
Net cash used in investing activities	(416,014)	(35,300)	(34,591)
Cash flows from financing activities:			
Proceeds from revolving loan	435,000	5,000	10,000
Principal payments on revolving loan	(103,000)	(60,000)	(95,000)
Principal payment on acquired debt	(30,988)	—	—
Cash paid for financing costs	(1,232)	—	—
Principal payments on finance lease	(177)	(159)	(151)
Proceeds from stock options exercised	3,212	6,943	14,155
Dividends paid	(20,713)	(18,723)	(16,705)
Repurchases of common stock	(35,423)	(35,239)	(13,463)
Net cash provided by (used in) financing activities	246,679	(102,178)	(101,164)
Effect of exchange rate changes on cash	(5,880)	(4,368)	4,160
(Decrease) increase in cash and cash equivalents	(36,679)	18,668	18,899
Cash and cash equivalents beginning of period	103,239	84,571	65,672
Cash and cash equivalents end of period	\$ 66,560	\$ 103,239	\$ 84,571

Supplemental Cash Flow Information - see Note 13
See accompanying notes to consolidated financial statements.

BALCHEM CORPORATION

Notes to Consolidated Financial Statements

(All amounts in thousands, except share and per share data)

NOTE 1 - BUSINESS DESCRIPTION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Business Description

Balchem Corporation (“Balchem” or the “Company”), including, unless the context otherwise requires, its wholly-owned subsidiaries, incorporated in the State of Maryland in 1967, is engaged in the development, manufacture and marketing of specialty performance ingredients and products for the food, nutritional, feed, pharmaceutical, agricultural, and medical sterilization industries.

Principles of Consolidation

The consolidated financial statements include the financial statements of the Company and its subsidiaries. All significant intercompany balances and transactions have been eliminated in consolidation. Certain reclassifications have been made to prior period amounts to conform with the current period's presentation.

Revenue Recognition

Revenue for each of the Company’s business segments is recognized when control of the promised goods is transferred to our customers, in an amount that reflects the consideration we expect to realize in exchange for those goods. The Company reports amounts billed to customers related to shipping and handling as revenue and includes costs incurred for shipping and handling in cost of sales. Amounts received for unshipped merchandise are not recognized as revenue but rather they are recorded as customer deposits and are included in current liabilities. In instances of shipments made on consignment, revenue is recognized when control is transferred to the customer.

In accordance with Accounting Standards Codification ("ASC") 606, *Revenue from Contracts with Customers*, revenue-generating contracts are assessed to identify distinct performance obligations, allocating transaction prices to those performance obligations, and criteria for satisfaction of a performance obligation. The standard allows for recognition of revenue only when we have satisfied a performance obligation through transferring control of the promised good or service to a customer. Control, in this instance, may mean the ability to prevent other entities from directing the use of, and receiving benefit from, a good or service. The standard indicates that an entity must determine at contract inception whether it will transfer control of a promised good or service over time or satisfy the performance obligation at a point in time through analysis of the following criteria: (i) the entity has a present right to payment, (ii) the customer has legal title, (iii) the customer has physical possession, (iv) the customer has the significant risks and rewards of ownership and (v) the customer has accepted the asset. The Company assesses collectability based primarily on the customer’s payment history and on the creditworthiness of the customer.

Cash and Cash Equivalents

The Company considers all highly liquid investments with a maturity of three months or less to be cash equivalents. The Company has funds in its cash accounts that are with third party financial institutions, primarily in certificates of deposit and money market funds. The Company's balances of cash and cash equivalents in the U.S. and other countries exceed the insurance limits of the Federal Deposit Insurance Corporation (“FDIC”) and other relevant insurance limits in other countries.

Accounts Receivable

Credit terms are granted in the normal course of business to the Company’s customers and on-going credit evaluations are performed on the Company’s customers. In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments", which requires that credit losses be reported based on expected losses instead of the incurred loss model. Based on this ASU, customers' credit limits are adjusted based upon their reasonably expected credit worthiness which is determined through review of their payment history, their current credit information, and any foreseeable future events. Collections and payments from customers are continuously monitored and allowances for doubtful accounts for estimated losses resulting from the inability of the Company’s customers to make required payments are maintained. Estimated losses are based on historical experience, any specific customer collection issues identified, and any reasonably expected future adverse events. If the financial condition of our customers were to deteriorate resulting in an impairment of their ability to make payments, additional allowances and related bad debt expense may be required.

Inventories

Inventories are valued at the lower of cost (first in, first out) or net realizable value and have been reduced by an allowance for excess or obsolete inventories. Cost elements include material, labor and manufacturing overhead.

Property, Plant and Equipment and Depreciation

Property, plant and equipment are stated at cost.

Depreciation of plant and equipment is calculated using the straight-line method over the estimated useful lives of the assets as follows:

Buildings	15-25 years
Equipment	2-28 years

Expenditures for repairs and maintenance are charged to expense. Alterations and major overhauls that extend the lives or increase the capacity of plant assets are capitalized. When assets are retired or otherwise disposed of, the cost of the assets and the related accumulated depreciation are removed from the accounts and any resultant gain or loss is included in earnings from operations.

Business Concentrations

Financial instruments that subject the Company to credit risk consist primarily of accounts receivable and money market investments. Investments are managed within established guidelines to mitigate risks. Accounts receivable subject the Company to credit risk partially due to the concentration of amounts due from customers. The Company extends credit to its customers based upon an evaluation of the customers' financial condition and credit histories. In 2022, 2021 and 2020, no customer accounted for more than 10% of total net sales or accounts receivable.

Post-employment Benefits

We provide life insurance, health care benefits, and defined benefit pension plan payments for certain eligible retirees and health care benefits for certain retirees' eligible survivors. The costs and obligations related to these benefits reflect our assumptions as to health care cost trends and key economic conditions including discount rates, expected rate of return on plan assets, and expected salary increases. The cost of providing plan benefits also depends on demographic assumptions including retirements, mortality, turnover, and plan participation. If actual experience differs from these assumptions, the cost of providing these benefits could increase or decrease.

In accordance with ASC 715, "Compensation-Retirement Benefits," we are required to recognize the overfunded or underfunded status of a defined benefit post retirement plan (other than a multiemployer plan) as an asset or liability in our statement of financial position, and to recognize changes in that funded status in the year in which the changes occur through comprehensive income.

Goodwill and Acquired Intangible Assets

Goodwill represents the excess of purchase price over the fair value of net assets acquired in accordance with ASC 805, "Business Combinations". Goodwill and intangible assets acquired in a business combination and determined to have an indefinite useful life are not amortized but are instead assessed for impairment annually and more frequently if events and circumstances indicate that the asset might be impaired, in accordance with the provisions of ASC 350, "Intangibles-Goodwill and Other". The Company performed its annual test as of October 1. ASC 350 also requires that intangible assets with estimable useful lives be amortized over their respective estimated useful lives to their estimated residual values, and reviewed for impairment if events and circumstances indicate that the asset might be impaired.

In January 2017, the FASB issued ASU No. 2017-04, "Simplifying the Test for Goodwill Impairment" ("ASU 2017-04"), which addresses changes to the testing for goodwill impairment by eliminating Step 2 of the process. A goodwill impairment test will now be performed by comparing the fair value of a reporting unit with its carrying amount. An impairment charge should be recognized for the amount by which the carrying amount exceeds the reporting unit's fair value.

As of October 1, 2022 and 2021, the Company opted to bypass the qualitative assessment and proceeded directly to performing the quantitative goodwill impairment test. The Company assessed the fair values of its reporting units by utilizing the income

approach, based on a discounted cash flow valuation model as the basis for its conclusions. The Company's estimates of future cash flows included significant management assumptions such as revenue growth rates, operating margins, discount rates, estimated terminal values and future economic and market conditions. The Company's assessment concluded that the fair values of the reporting units exceeded their carrying amounts, including goodwill. Accordingly, the goodwill of the reporting units was not considered impaired as of October 1, 2022 and 2021. The Company may resume performing the qualitative assessment in subsequent periods.

The Company had goodwill in the amount of \$769,509 and \$523,949 as of December 31, 2022 and 2021, respectively, subject to the provisions of ASC 350, "Intangibles-Goodwill and Other."

Goodwill at December 31, 2020	\$	529,463
Impact due to change in foreign exchange rates		(5,514)
Goodwill at December 31, 2021		523,949
Goodwill as a result of the Kappa acquisition		216,295
Goodwill as a result of the Bergstrom acquisition		31,209
Impact due to change in foreign exchange rates		(1,944)
Goodwill at December 31, 2022	\$	769,509

	December 31, 2022	December 31, 2021
HNH	\$ 665,804	\$ 424,044
ANH	24,218	17,207
Specialty Products	79,429	82,654
Other and Unallocated	58	44
Total	\$ 769,509	\$ 523,949

The following intangible assets with finite lives are stated at cost and are amortized either on an accelerated basis or on a straight-line basis over the following estimated useful lives:

	Amortization Period (in years)
Customer relationships and lists	10 - 20
Trademarks and trade names	2 - 17
Developed technology	5 - 12
Regulatory registration costs	5 - 10
Patents and trade secrets	15 - 17
Other	2 - 18

Intangible assets with finite lives are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated future cash flows, an impairment charge is recognized by the amount by which the carrying amount of the asset exceeds the fair value of the asset, which is generally based on discounted cash flows. The useful life of an intangible asset is based on our assumptions regarding expected use of the asset; the relationship of the intangible asset to another asset or group of assets; any legal, regulatory or contractual provisions that may limit the useful life of the asset or that enable renewal or extension of the asset's legal or contractual life without substantial cost; the effects of obsolescence, demand, competition and other economic factors; and the level of maintenance expenditures required to obtain the expected future cash flows from the asset and their related impact on the asset's useful life. If events or circumstances indicate that the life of an intangible asset has changed, it could result in higher future amortization charges or recognition of an impairment loss. For the year ended December 31, 2022, there were no triggering events which required intangible asset impairment reviews.

Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are measured using enacted tax rates in effect for the fiscal year in which those temporary differences are expected to be recovered or settled. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized. In evaluating our ability to recover our deferred tax assets, in full or in part, we consider all available positive and negative evidence, including our past operating results, our forecast of future market growth, forecasted earnings, future taxable income, and prudent and feasible tax planning strategies. The assumptions utilized in determining future taxable income require judgment and are consistent with the plans and estimates we are using to manage the underlying businesses.

We recognize uncertain income tax positions taken on income tax returns at the largest amount that is more likely than not to be sustained upon audit by the relevant taxing authority. An uncertain income tax position will not be recognized if it has less than a fifty percent likelihood of being sustained.

Our policy for recording interest and penalties associated with uncertain tax positions is to record such items as a component of our income tax provision.

Use of Estimates

Management is required to make certain estimates and assumptions during the preparation of consolidated financial statements in accordance with accounting principles generally accepted in the United States of America. These estimates and assumptions impact the reported amount of assets and liabilities and disclosures of contingent assets and liabilities as of the date of the consolidated financial statements and revenues and expenses during the reporting period. Estimates and assumptions are reviewed periodically, and the effects of revisions are reflected in the consolidated financial statements in the period they are determined to be necessary. Actual results could differ from those estimates.

Fair Value of Financial Instruments

The Company has a number of financial instruments, none of which are held for trading purposes. The estimated fair value amounts have been determined by the Company using available market information and appropriate valuation methodologies. Considerable judgment is required in interpreting market data to develop the estimates of fair value, and, accordingly, the estimates are not necessarily indicative of the amounts that the Company could realize in a current market exchange. The carrying value of debt approximates fair value as the interest rate is based on market and the Company's consolidated leverage ratio. The Company's financial instruments also include cash equivalents, accounts receivable, accounts payable and accrued liabilities, and are carried at cost which approximates fair value due to the short-term maturity of these instruments.

In addition, non-current assets includes rabbi trust funds related to the Company's deferred compensation plan. The money market and rabbi trust funds are valued using level one inputs, as defined by ASC 820, "Fair Value Measurement."

The Company also has derivative financial instruments, consisting of a cross-currency swap and an interest rate swap, which are included in derivative assets and derivative liabilities, in the consolidated balance sheets (see Note 20, Derivative Instruments and Hedging Activities). The fair values of these derivative instruments are determined based on Level 2 inputs, using significant inputs that are observable either directly or indirectly, including interest rate curves and implied volatilities.

Cost of Sales

Cost of sales are primarily comprised of raw materials and supplies consumed in the manufacture of product, as well as manufacturing labor, maintenance labor, depreciation expense, and direct overhead expense necessary to convert purchased materials and supplies into finished product. Cost of sales also includes inbound freight costs, outbound freight costs for shipping products to customers, warehousing costs, quality control and obsolescence expense.

Selling, General and Administrative Expenses

Selling expenses consist primarily of compensation and benefit costs, amortization of customer relationships and lists, trade promotions, advertising, commissions and other marketing costs. General and administrative expenses consist primarily of payroll and benefit costs, occupancy and operating costs of corporate offices, depreciation and amortization expense on non-manufacturing assets, information systems costs and other miscellaneous administrative costs.

Research and Development

Research and development costs are associated directly with the Company's efforts to develop, design, and enhance its products, services, technologies, or processes. Such costs are expensed as incurred.

Net Earnings Per Common Share

Basic net earnings per common share is calculated by dividing net income by the weighted average number of common shares outstanding during the period. Diluted net earnings per common share is calculated in a manner consistent with basic net earnings per common share except that the weighted average number of common shares outstanding also includes the dilutive effect of stock options outstanding, unvested restricted stock, and unvested performance shares (using the treasury stock method).

Stock-based Compensation

The Company has stock-based employee compensation plans, which are described more fully in Note 3. The Company accounts for stock-based compensation in accordance with ASC 718, "Compensation-Stock Compensation," which requires all share-based payments, including grants of stock options, to be recognized in the income statement as an operating expense, based on their fair values. The Company estimates the fair value of each option award on the date of grant using either the Black-Scholes model or the Binomial model, whichever is deemed to be most appropriate. Estimates of and assumptions about forfeiture rates, terms, volatility, interest rates and dividend yields are used to calculate stock-based compensation. A significant change to these estimates could materially affect the Company's operating results.

Impairment of Long-lived Assets

Long-lived assets, such as property, plant, and equipment, and purchased intangibles subject to amortization, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset group to estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated future cash flows, an impairment charge is recognized by the amount by which the carrying amount of the asset exceeds the fair value of the asset, which is generally based on discounted cash flows.

Derivative Instruments and Hedging Activities

The Company is exposed to market fluctuations in interest rates as well as variability in foreign exchange rates. In May 2019, the Company entered into an interest rate swap with JP Morgan Chase, N.A. (the "Swap Counterparty") and a cross-currency swap with JP Morgan Chase, N.A. (the "Bank Counterparty"). The Company's primary objective for holding derivative financial instruments is to manage interest rate risk and foreign currency risk. The Company does not enter into derivative financial instruments for trading or speculative purposes.

The derivative instruments are with the above single counterparty and are subject to a contractual agreement that provides for the net settlement of all contracts through a single payment in a single currency in the event of default on or termination of any one contract. As such, the derivative instruments are categorized as a master netting arrangement and presented as a net derivative asset or derivative liability on the consolidated balance sheet.

On a quarterly basis, we assess the effectiveness of the hedging relationships for the interest rate swap and cross-currency swap by reviewing the critical terms indicated in the applicable agreement. As of December 31, 2022, we assessed the hedging relationships and determined them to be highly effective. As such, the net change in fair values of the interest rate swap, that qualifies as a cash flow hedge, was recorded in accumulated other comprehensive income/(loss) and is subsequently reclassified into interest expense as interest payments are made on our debt. For the cross-currency swap, the amounts that have not yet been recognized in earnings remained in the cumulative translation adjustment section of accumulated other comprehensive income until the hedged net investment is sold or liquidated in accordance with paragraphs 815-35-35-5A, "Derivatives and Hedging - Net Investment Hedges", and 830-30-40-1 through 40-1A, "Foreign Currency Matters - Derecognition". Refer to Note 20, Derivative Instruments and Hedging Activities, for detailed information about our derivative financial instruments.

Recently Adopted Accounting Pronouncements

In March 2020, the FASB issued Accounting Standards Update ("ASU") 2020-04, "Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting." This ASU provides temporary optional guidance to ease the potential burden in accounting for reference rate reform. The new guidance provides optional expedients and exceptions for applying GAAP to contract modifications and hedging relationships, subject to meeting certain criteria, that reference LIBOR or another reference rate expected to be discontinued. The ASU is intended to help stakeholders during the global market-wide reference rate transition period. Therefore, this Standard Update is in effect from March 12, 2020 through December 31, 2022. In January 2021, the FASB issued ASU 2021-01, "Reference Rate Reform (Topic 848): Scope." ASU 2021-01 clarifies that certain optional expedients and exceptions in Topic 848 for contract modifications and hedge accounting apply to derivatives that are affected by the discounting transition. The ASU also amends the expedients and exceptions in Topic 848 to capture the incremental consequences of the scope clarification and to tailor the existing guidance to derivative instruments affected by the discounting transition. In December 2022, the FASB issued ASU 2022-06, "Reference Rate Reform (Topic 848): Deferral of the Sunset Date of Topic 848." The amendments in this Update defer the sunset date of Topic 848 from December 31, 2022 to December 31, 2024 as the UK Financial Conduct Authority ("FCA") announced that the intended cessation date would be June 30, 2023, which is beyond the current sunset date of Topic 848. The Company adopted the Standard Update in 2021. Due to the discontinuation of LIBOR and under the relief provided by Topic 848, during the third quarter of 2022, the Company modified its existing interest rate swap and replaced LIBOR with 1-month CME Term SOFR (see Note 20, Derivative Instruments and Hedging Activities). The modification of the agreement did not have a significant impact on the Company's consolidated financial statements and disclosures.

In December 2019, the FASB issued ASU 2019-12, "Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes." ASU 2019-12 simplifies the accounting for income taxes by removing certain exceptions to the general principles in Topic 740. The amendments also improve consistent application of and simplify GAAP for other areas of Topic 740 by clarifying and amending existing guidance. ASU 2019-12 became effective for fiscal years beginning after December 15, 2020, and interim periods within those fiscal years. The Company adopted ASU 2019-12 on January 1, 2021. The adoption of ASU 2019-12 did not have a significant impact on the Company's consolidated financial statements and disclosures.

NOTE 2 – SIGNIFICANT ACQUISITIONS

Cardinal Associates Inc. ("Bergstrom")

On August 30, 2022, the Company's wholly-owned subsidiary Albion Laboratories, Inc. ("Albion") entered into a Stock Purchase Agreement, and closed on such transaction with Cardinal Associates Inc. ("Cardinal"), a corporation organized under the laws of the State of Washington, pursuant to which Albion acquired 100% of the voting equity interests of Cardinal and its Bergstrom Nutrition business (collectively, "Bergstrom"). Bergstrom Nutrition is a leading science-based manufacturer of MSM, based in Vancouver, Washington. MSM is a widely used nutritional ingredient with strong scientific evidence supporting its benefits for joint health, sports nutrition, skin and beauty, healthy aging, and pet health. The addition of OptiMSM[®], Bergstrom Nutrition's MSM brand, to the Company's portfolio within the Human Nutrition and Health and Animal Nutrition and Health segments provides a synergistic scientific advantage in Balchem's key strategic therapeutic focus areas such as longevity and performance and is a strong fit with Balchem's specialty, science-backed mineral products.

The Company made payments of \$70,892 for the acquisition, amounting to \$70,686 to the former shareholders or on behalf of the former shareholders and \$206 to pay off Bergstrom's bank debt. Net of cash acquired of \$773, total payments made to the former shareholders or on behalf of the former shareholders of Bergstrom were \$69,913. The acquisition was primarily financed through the 2022 Credit Agreement (see Note 8, Revolving Loan). In connection with this transaction, the former shareholders of Bergstrom have an opportunity to receive an additional payment in 2024 if certain financial performance targets and other metrics are met, and therefore the Company recorded a contingent consideration liability, which was valued at \$11,400 as of December 31, 2022. As a result, total payments related to the transaction are expected to be \$82,292, comprised of the upfront cash consideration of \$70,892 and the fair value of the earn-out payment of \$11,400.

The goodwill of \$31,209 that arose on the acquisition date consists largely of expected synergies, including the combined entities' experience and technical problem-solving capabilities, and acquired workforce. 80% of the goodwill is assigned to the Human Nutrition and Health business segment and 20% of the goodwill is assigned to the Animal Nutrition and Health business segment. For tax purposes, a joint election under 338(h)(10) was made to treat the stock acquisition as a deemed asset acquisition, therefore generating tax amortizable goodwill.

The following table summarizes the estimated fair values of the assets acquired and liabilities assumed:

Cash and cash equivalents	\$	773
Accounts receivable		4,699
Inventories		3,972
Property, plant and equipment		2,243
Right of use assets		866
Customer relationships		29,900
Developed technology		4,600
Trademarks		2,300
Other assets		197
Accounts payable		(699)
Other current liabilities		(462)
Bank debt		(206)
Lease liabilities		(871)
Goodwill		31,209
Total consideration on acquisition date		78,521
Increase to contingent consideration liability		3,565
Total expected consideration		82,086
To pay off bank debt		206
Total expected payments	\$	82,292

The estimated fair value of tangible and intangible assets acquired and liabilities assumed is based on management's estimates and assumptions, which are subject to change. In preparing our preliminary fair value estimates of the intangible assets and certain tangible assets acquired, management, among other things, consulted an independent advisor. Valuation methods utilized include net realizable value for inventory, multi-period excess earnings method for customer relationships, the relief from royalty method for other intangible assets, and a scenario-based approach for the contingent consideration. The Company made certain measurement period adjustments based on changes in facts and circumstances as of the acquisition date, which resulted in an increase in the value of intangible assets of \$3,300 and a decrease in property, plant and equipment and goodwill of \$457 and \$2,851, respectively. The purchase price and related allocation of assets acquired and liabilities assumed is preliminary pending final working capital true-up negotiations with the sellers.

Customer relationships are amortized over a 15-year period utilizing a percentage of excess earnings over economic life method. The corporate trademark and product trademarks are amortized over 2 years and 10 years, respectively, and developed technology is amortized over 12 years, utilizing the straight-line method as the consumption pattern of the related economic benefits cannot be reliably determined.

Transaction and integration costs related to the Bergstrom acquisition are included in general and administrative expenses and were \$1,039 for the year ended December 31, 2022. There were no such amounts related to this acquisition for years ended December 31, 2021 and 2020.

Kechu BidCo AS and Its Subsidiary Companies ("Kappa")

On June 21, 2022, Balchem Corporation and its wholly-owned subsidiary, Balchem B.V., completed the acquisition of Kechu BidCo AS and its subsidiary companies, including Kappa Bioscience AS, a leading science-based manufacturer of specialty vitamin K2 for the human nutrition industry, headquartered in Oslo, Norway (all acquired companies collectively referred to as "Kappa"). Kappa manufactures specialty vitamin K2, a fast-growing specialty vitamin that plays a crucial role in the human body for bone health, heart health and immunity. Primarily, vitamin K2 supports the transport and distribution of calcium in the body. Vitamin K2 is important at all life stages, from pregnancy and early life to healthy aging. The acquisition strengthens the Company's scientific and technical expertise, geographic reach, and marketplace leadership, which should ultimately lead to accelerated growth for the Company's portfolios within the Human Nutrition and Health segment.

The Company made payments of approximately kr3,305,653 ("kr" indicates the Norwegian krone), amounting to approximately kr3,001,981 to the former shareholders and approximately kr303,672 to Kappa's lenders to pay off all Kappa bank debt. Net of cash acquired of kr63,064, total payments to the former shareholders were kr2,938,917. Net of gains on foreign currency forward contracts of \$512 (see Note 20, Derivative Instruments and Hedging Activities), these payments translated to approximately \$333,112, amounting to approximately \$302,464 paid to the former shareholders and approximately \$30,648 to Kappa's lenders. Net of cash acquired of \$6,365, total payments made to the former shareholders of Kappa were approximately \$296,099. The acquisition was primarily financed through the 2018 Credit Agreement (see Note 8, Revolving Loan). In connection with this transaction, the former shareholders of Kappa have an opportunity to receive an additional payment in 2024 if certain financial performance targets and other metrics are met. There was no contingent consideration liability recorded as of December 31, 2022.

The goodwill of \$216,295 that arose on the acquisition date consists largely of expected synergies, including the combined entities' experience and technical problem-solving capabilities, and acquired workforce. The goodwill is assigned to the Human Nutrition and Health business segment and is not deductible for income tax purposes.

The following table summarizes the estimated fair values of the assets acquired and liabilities assumed. The transactions were completed in Norwegian kroner ("NOK") and the amounts were translated to U.S. dollars ("USD") using the foreign currency exchange rate as of June 21, 2022.

Cash and cash equivalents	\$	6,365
Accounts receivable		8,036
Inventories		17,600
Property, plant and equipment		9,854
Right of use assets		3,349
Customer relationships		88,813
Developed technology		15,643
Trademarks		5,046
Other assets		2,399
Accounts payable		(3,301)
Bank debt		(30,648)
Lease liabilities		(3,349)
Other liabilities		(4,373)
Deferred income taxes, net		(24,716)
Goodwill		216,295
Total consideration on acquisition date		307,013
Decrease to contingent consideration liability		(4,037)
Net gain on foreign currency exchange forward contracts		(512)
Total expected consideration		302,464
Kappa bank debt paid on acquisition date		30,648
Total expected payments	\$	333,112

The estimated fair value of tangible and intangible assets acquired and liabilities assumed is based on management's estimates and assumptions, which are subject to change. In preparing our preliminary fair value estimates of the intangible assets and certain tangible assets acquired, management, among other things, consulted an independent advisor. Valuation methods utilized include net realizable value for inventory, multi-period excess earnings method for customer relationships, the relief from royalty method for other intangible assets, and a scenario-based approach for the contingent consideration. The Company made certain measurement period adjustments based on changes in facts and circumstances as of the acquisition date, which resulted in a decrease in the value of intangible assets, contingent consideration, and deferred income tax liabilities of \$28,264, \$20,250, and \$4,411, respectively, and an increase in goodwill of \$3,704. The purchase price and related allocation of assets acquired and liabilities assumed is preliminary pending management's final review of deferred tax liabilities related to certain non-deductible assets.

Customer relationships are amortized over a 15-year period utilizing a percentage of excess earnings over economic life method. The corporate trademark and product trademarks are amortized over 2 years and 10 years, respectively, and developed technology is amortized over 12 years, utilizing the straight-line method as the consumption pattern of the related economic benefits cannot be reliably determined.

Transaction and integration costs related to the Kappa acquisition are included in general and administrative expenses and was \$1,731 for year ended December 31, 2022. There were no such amounts related to this acquisition for year ended December 31, 2021 and 2020.

The following selected unaudited pro forma information presents the consolidated results of operations as if the business combinations in 2022 had occurred as of January 1, 2021.

	Twelve Months ended December 31,	
	Net Sales	Net Earnings
Kappa & Bergstrom actual results included in the Company's consolidated income statement in 2022	\$ 22,158	\$ (5,359)
2022 Supplemental pro forma combined financial	\$ 982,021	\$ 110,181
2021 Supplemental pro forma combined financial	\$ 859,252	\$ 90,672

The above selected unaudited pro forma information includes the following acquisition-related adjustments: (1) additional amortization of intangible assets and depreciation of fixed assets; (2) adjustments related to the fair value of the acquired inventory, (3) adjustments to interest expense on borrowings at rates in effect during the related period, factoring in estimated payments based on free cash flow, and (4) other one-time adjustments.

The pro forma information presented does not purport to be indicative of the results that actually would have been attained if these acquisitions had occurred at the beginning of the periods presented and is not intended to be a projection of future results.

NOTE 3 - STOCKHOLDERS' EQUITY

Stock-Based Compensation

All share-based payments, including grants of stock options, are recognized in the statements of earnings as operating expenses, based on their fair values.

The Company has made an estimate of expected forfeitures, based on its historical experience, and is recognizing compensation cost only for those stock-based compensation awards expected to vest.

The Company's results for the years ended December 31, 2022, 2021 and 2020 reflected the following compensation cost and such compensation cost had the following effects on net earnings:

	Increase/(Decrease) for the Year Ended December 31,		
	2022	2021	2020
Cost of sales	\$ 1,302	\$ 845	\$ 1,115
Operating expenses	11,922	9,957	7,188
Net earnings	(10,214)	(8,370)	(6,332)

On December 31, 2022, the Company had one share-based compensation plan under which awards may be granted, which is described below.

In June 2017, the Company adopted the Balchem Corporation 2017 Omnibus Incentive Plan ("2017 Plan") for officers, employees and directors of the Company and its subsidiaries. The 2017 Plan replaced the 1999 Stock Plan and amendments and restatements thereto (collectively to be referred to as the "1999 Plan"), which expired on April 9, 2018. No further awards will be made under the 1999 Plan, and the shares that remained available for grant under the 1999 Plan will only be used to settle outstanding awards granted under the 1999 Plan and will not become available under the 2017 Plan. The 2017 Plan is administered by the Compensation Committee of the Board of Directors of the Company. The 2017 Plan provides as follows: (i) for a termination date of June 13, 2027; (ii) the authorization of 1,600,000 shares for future grants (which represents a reduction from the 6,000,000 shares authorized for grant under the 1999 Plan); (iii) for the making of grants of stock options, stock appreciation rights, restricted stock awards, restricted stock units, and other stock-based awards, as well as for the making of cash performance awards; (iv) except as provided in an employment agreement as in effect on the effective date of the 2017 Plan, no automatic acceleration of outstanding awards upon the occurrence of a change in control of the Company; (v) certain annual limits on the number of shares and amount of cash that may be granted; (vi) for dividends or dividend equivalents otherwise payable on an unvested award to accrue and be paid only at such time as the vesting conditions applicable to the underlying award have been

satisfied; (vii) for certain discretionary compensation recovery if the Company is required to prepare an accounting restatement of its financial statements due to the Company's material noncompliance with any financial reporting requirements under the securities laws; and (viii) for compliance with the requirements of Section 409A of the Internal Revenue Code of 1986, as amended (the "Internal Revenue Code" or the "Code"). No option will be exercisable for longer than ten years after the date of grant.

The shares to be issued upon exercise of the outstanding options have been approved, reserved and are adequate to cover all exercises. As of December 31, 2022, the 2017 Plan had 408,380 shares available for future awards.

The Company has Restricted Stock Grant Agreements with the Company's non-employee directors and certain employees. Under the Restricted Stock Grant Agreements, certain shares of the Common Stock have been granted, ranging from 70 shares to 54,000 shares, to its non-employee directors and certain employees, subject to time-based vesting requirements.

The Company also has performance share ("PS") awards, which provide the recipients the right to receive a certain number of shares of the Common Stock in the future, subject to an (1) EBITDA performance hurdle, where vesting is dependent upon the Company achieving a certain EBITDA percentage growth over the performance period, and (2) relative total shareholder return ("TSR") market condition where vesting is dependent upon the Company's TSR performance over the performance period (typically three years) relative to a comparator group consisting of the Russell 2000 index constituents.

The fair value of each option award issued under the Company's stock plans is estimated on the date of grant using either the Black-Scholes model or the Binomial model, whichever is deemed to be most appropriate. For the years ended December 31, 2022, 2021, and 2020, the fair value of each option grant uses the assumptions noted in the following table. Expected volatilities are based on historical volatility of the Company's stock. The expected term of the options is based on the Company's historical experience of employees' exercise behavior. Dividend yields are based on the Company's historical dividend yields. Risk-free interest rates are based on the implied yields currently available on U.S. Treasury zero coupon issues with a remaining term equal to the expected life.

Weighted Average Assumptions:	Year Ended December 31,		
	2022	2021	2020
Expected Volatility	30.3 %	32.9 %	26.9 %
Expected Term (in years)	7.3	4.9	3.9
Risk-Free Interest Rate	2.8 %	0.5 %	1.3 %
Dividend Yield	0.5 %	0.5 %	0.5 %

The value of the restricted shares is based on the fair value of the award at the date of grant.

Performance Share expense is measured based on the fair value at the date of grant utilizing a Black-Scholes methodology to produce a Monte-Carlo simulation model which allows for the incorporation of the performance hurdles that must be met before the Performance Share vests. The assumptions used in the fair value determination were risk free interest rates of 1.8%, 0.2%, and 1.4%; dividend yields of 0.5%, 0.6%, and 0.5%; volatilities of 32%, 33%, and 24%; and initial TSR's of -15.7%, 11.7%, and 10.9% in each case for the years ended December 31, 2022, 2021, and 2020, respectively. Expense is based on the estimated number of shares expected to vest, assuming the requisite service period is rendered and the probable outcome of the performance condition is achieved. The estimate is revised if subsequent information indicates that the actual number of shares likely to vest differs from previous estimates. Expense is ultimately adjusted based on the actual achievement of service and performance targets. The Performance Shares will cliff vest 100% at the end of the third year following the grant in accordance with the performance metrics set forth.

Compensation expense for stock options and stock awards is recognized on a straight-line basis over the vesting period, generally three to five years for stock options, three years for employee restricted stock awards, three years for employee performance share awards, and three years for non-employee director restricted stock awards.

A summary of stock option plan activity for 2022, 2021, and 2020 for all plans is as follows:

	2022		2021		2020	
	# of Shares (000s)	Weighted Average Exercise Price	# of Shares (000s)	Weighted Average Exercise Price	# of Shares (000s)	Weighted Average Exercise Price
Outstanding at beginning of year	867	\$ 88.19	858	\$ 80.58	951	\$ 68.18
Granted	239	139.04	129	119.12	174	111.75
Exercised	(44)	73.58	(109)	63.42	(256)	55.26
Forfeited	(17)	124.89	(10)	106.93	(11)	92.94
Cancelled	—	—	(1)	74.57	—	—
Outstanding at end of year	<u>1,045</u>	\$ 99.82	<u>867</u>	\$ 88.19	<u>858</u>	\$ 80.58
Exercisable at end of year	<u>654</u>	\$ 81.95	<u>538</u>	\$ 75.51	<u>494</u>	\$ 69.04

The aggregate intrinsic value for outstanding stock options was \$27,221, \$69,711 and \$29,735 at December 31, 2022, 2021 and 2020, respectively, with a weighted average remaining contractual term of 6.4 years at December 31, 2022. Exercisable stock options at December 31, 2022 had an aggregate intrinsic value of 26,279 with a weighted average remaining contractual term of 5.0 years.

Other information pertaining to option activity during the years ended December 31, 2022, 2021 and 2020 is as follows:

	Years Ended December 31,		
	2022	2021	2020
Weighted-average fair value of options granted	\$ 44.77	\$ 33.11	\$ 24.36
Total intrinsic value of stock options exercised (\$000s)	\$ 2,713	\$ 7,866	\$ 12,698

Additional information related to stock options outstanding under all plans at December 31, 2022 is as follows:

Range of Exercise Prices	Options Outstanding			Options Exercisable	
	Shares Outstanding (000s)	Weighted Average Remaining Contractual Term	Weighted Average Exercise Price	Number Exercisable (000s)	Weighted Average Exercise Price
\$38.10 - \$74.57	267	3.6	\$ 65.05	267	\$ 65.05
\$76.89 - \$111.94	403	5.75	93.78	349	91.06
\$113.24 - \$150.85	375	8.9	131.11	38	117.05
	<u>1,045</u>	6.4	\$ 99.82	<u>654</u>	\$ 81.95

Non-vested restricted stock activity for the years ended December 31, 2022, 2021 and 2020 is summarized below:

	2022		2021		2020	
	Shares (000s)	Weighted Average Grant Date Fair Value	Shares (000s)	Weighted Average Grant Date Fair Value	Shares (000s)	Weighted Average Grant Date Fair Value
Non-vested balance at beginning of year	166	\$ 99.70	159	\$ 90.71	138	\$ 80.03
Granted	46	137.17	42	123.58	46	110.53
Vested	(82)	82.15	(24)	85.83	(21)	67.60
Forfeited	(8)	118.07	(11)	90.49	(4)	91.91
Non-vested balance at end of year	122	\$ 124.42	166	\$ 99.70	159	\$ 90.71

Non-vested performance share activity for the years ended December 31, 2022, 2021 and 2020 is summarized below:

	2022		2021		2020	
	Shares (000s)	Weighted Average Grant Date Fair Value	Shares (000s)	Weighted Average Grant Date Fair Value	Shares (000s)	Weighted Average Grant Date Fair Value
Non-vested balance at beginning of year	69	\$ 110.72	71	\$ 91.99	70	\$ 81.26
Granted	39	114.22	36	108.74	20	126.46
Vested	(35)	53.17	(24)	70.64	(8)	104.15
Forfeited	(3)	84.09	(14)	81.03	(11)	82.71
Non-vested balance at end of year	70	\$ 127.69	69	\$ 110.72	71	\$ 91.99

As of December 31, 2022, 2021 and 2020, there was \$20,791, \$13,980 and \$14,154, respectively, of total unrecognized compensation cost related to non-vested share-based compensation arrangements granted under the plans. As of December 31, 2022, the unrecognized compensation cost is expected to be recognized over a weighted-average period of approximately 1.9 years. We estimate that share-based compensation expense for the year ended December 31, 2023 will be approximately \$14,600.

Repurchase of Common Stock

The Company's Board of Directors has approved a stock repurchase program. The total authorization under this program is 3,763,038 shares. Since the inception of the program in June 1999, a total of 3,070,548 shares have been purchased. The Company's prior presentation of reflecting treasury stock separately within stockholders' equity has been adjusted to conform to the presentation adopted in 2021 as prescribed by the State of Maryland, where the Company is incorporated. In connection therewith, adjustments to balances previously reflected as treasury stock of \$7,873 and \$18,069 for the years ended December 31, 2020 and 2019 were made to the consolidated statements of stockholders' equity and prior references to "Treasury shares purchased" were updated to "Repurchases of common stock", accordingly. There was no impact to total stockholders' equity in any of the years presented as a result of these updates. The Company intends to acquire shares from time to time at prevailing market prices if and to the extent it deems it is advisable to do so based on its assessment of corporate cash flow, market conditions and other factors. The Company also repurchases shares from employees in connection with settlement of transactions under the Company's equity incentive plans. During 2022, 2021, and 2020, the Company purchased 252,304, 249,848, and 136,629 shares, respectively, from open market purchases and from employees on a net-settlement basis to provide cash to employees to cover the associated employee payroll taxes. These shares were purchased at an average cost of \$140.40, \$141.04, and \$98.54 per share, respectively.

NOTE 4 - INVENTORIES

Inventories, net of reserves at December 31, 2022 and 2021 consisted of the following:

	2022	2021
Raw materials	\$ 44,477	\$ 28,639
Work in progress	3,143	10,563
Finished goods	72,048	51,856
Total inventories	<u>\$ 119,668</u>	<u>\$ 91,058</u>

On a regular basis, the Company evaluates its inventory balances for excess quantities and obsolescence by analyzing demand, inventory on hand, sales levels and other information. Based on these evaluations, inventory balances are reserved, if necessary. The reserve for inventory was \$2,640 and \$1,425 at December 31, 2022 and 2021, respectively.

NOTE 5 - PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment at December 31, 2022 and 2021 are summarized as follows:

	2022	2021
Land	\$ 11,415	\$ 11,692
Building	90,644	89,602
Equipment	278,851	253,995
Construction in progress	79,928	52,930
	<u>460,838</u>	<u>408,219</u>
Less: Accumulated depreciation	189,483	170,702
Property, plant and equipment, net	<u>\$ 271,355</u>	<u>\$ 237,517</u>

Geographic Area Data - Long-Lived Assets (excluding intangible assets):

	2022	2021
United States	\$ 211,588	\$ 197,432
Foreign Countries	59,767	40,085
Total	<u>\$ 271,355</u>	<u>\$ 237,517</u>

Depreciation expense was \$24,033, \$23,295 and \$22,990 for the years ended December 31, 2022, 2021 and 2020, respectively.

NOTE 6 - INTANGIBLE ASSETS

The Company had goodwill in the amount of \$769,509 and \$523,949 as of December 31, 2022 and 2021, respectively, subject to the provisions of ASC 350, "Intangibles-Goodwill and Other." The increase in goodwill is the result of the acquisitions of Kappa and Bergstrom, partially offset by foreign exchange translation adjustments.

As of December 31, 2022 and 2021, the Company had identifiable intangible assets as follows:

	Amortization Period (In years)	2022		2021	
		Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Customer relationships and lists	10-20	\$ 357,131	\$ 190,576	\$ 240,059	\$ 173,489
Trademarks and trade names	2-17	50,058	33,416	43,116	28,985
Developed technology	5-12	40,473	16,171	20,234	14,607
Other	2-18	25,041	19,245	23,921	15,584
		<u>\$ 472,703</u>	<u>\$ 259,408</u>	<u>\$ 327,330</u>	<u>\$ 232,665</u>

Amortization of identifiable intangible assets was \$27,271, \$25,092 and \$27,811 for 2022, 2021 and 2020, respectively. Assuming no change in the gross carrying value of identifiable intangible assets, the estimated amortization expense is approximately \$28,395 in 2023, \$19,305 in 2024, \$15,938 in 2025, \$15,847 in 2026, and \$15,267 in 2027. At December 31, 2022 and 2021, there were no identifiable intangible assets with indefinite useful lives as defined by ASC 350, "Intangibles-Goodwill and Other." Identifiable intangible assets are reflected in the Company's consolidated balance sheets under Intangible assets with finite lives, net. There were no changes to the useful lives of intangible assets subject to amortization in 2022 and 2021.

The Federal Insecticide, Fungicide and Rodenticide Act, ("FIFRA"), a health and safety statute, requires that certain products within our specialty products segment must be registered with the U.S. Environmental Protection Agency (the "EPA") because they are considered pesticides. Costs of such registrations are included as other in the table above.

NOTE 7 – EQUITY-METHOD INVESTMENT

In 2013, the Company and Eastman Chemical Company (formerly Taminco Corporation) formed a joint venture (66.66% / 33.34% ownership), St. Gabriel CC Company, LLC, to design, develop, and construct an expansion of the Company's St. Gabriel aqueous choline chloride plant. The Company contributed the St. Gabriel plant, at cost, and all continued expansion and improvements are funded by the owners. The joint venture became operational as of July 1, 2016. St. Gabriel CC Company, LLC is a Variable Interest Entity (VIE) because the total equity at risk is not sufficient to permit the joint venture to finance its own activities without additional subordinated financial support. Additionally, voting rights (2 votes each) are not proportionate to the owners' obligation to absorb expected losses or receive the expected residual returns of the joint venture. The Company will receive up to 2/3 of the production offtake capacity and absorbs operating expenses approximately proportional to the actual percentage of offtake. The joint venture is accounted for under the equity method of accounting since the Company is not the primary beneficiary as the Company does not have the power to direct the activities of the joint venture that most significantly impact its economic performance. The Company recognized a loss of \$559, \$557, and \$575 for the years ended December 31, 2022, 2021, and 2020, respectively, relating to its portion of the joint venture's expenses in other expense. The Company made capital contributions to the investment totaling \$355, \$85, and \$366 for the years ended December 31, 2022, 2021, and 2020 respectively. The carrying value of the joint venture at December 31, 2022 and 2021 was \$4,295 and \$4,499, respectively, and is recorded in other assets.

NOTE 8 – REVOLVING LOAN

On June 27, 2018, the Company and a bank syndicate entered into a credit agreement (the "2018 Credit Agreement"), which provided for revolving loans up to \$500,000, due on June 27, 2023. During the second quarter of 2022, the Company borrowed \$345,000 under the 2018 Credit Agreement to fund the Kappa acquisition (see Note 2, Significant Acquisitions). On July 27, 2022, the Company entered into an Amended and Restated Credit Agreement (the "2022 Credit Agreement") with certain lenders in the form of a senior secured revolving credit facility, due on July 27, 2027. The 2022 Credit Agreement allows for up to \$550,000 of borrowing. The loans may be used for working capital, letters of credit, and other corporate purposes and may be drawn upon at the Company's discretion. The Company used initial proceeds from the 2022 Credit Agreement to repay the outstanding balance of \$433,569 due in June 2023 under the 2018 Credit Agreement. During the third quarter of 2022, the Company borrowed another \$70,000 to fund the Bergstrom acquisition (see Note 2, Significant Acquisitions). As of December 31, 2022, the total balance outstanding on the 2022 Credit Agreement amounted to \$440,569. As of December 31, 2021, the total balance outstanding on the 2018 Credit Agreement amounted to \$108,569. There are no installment payments required on the revolving loans; they may be voluntarily prepaid in whole or in part without premium or penalty, and all outstanding amounts are due on the maturity date. In connection with entering into the Amended and Restated Credit Agreement, the Company also modified its existing interest rate swap under the relief provided for in ASC 848, "Reference Rate Reform" (see Note 20 Derivative Instruments and Hedging Activities).

Amounts outstanding under the 2022 Credit Agreement are subject to an interest rate equal to a fluctuating rate as defined by the 2022 Credit Agreement plus an applicable rate. The applicable rate is based upon the Company's consolidated net leverage ratio, as defined in the 2022 Credit Agreement, and the interest rate was 5.798% at December 31, 2022. The Company is also required to pay a commitment fee on the unused portion of the revolving loan, which is based on the Company's consolidated net leverage ratio as defined in the 2022 Credit Agreement and ranges from 0.150% to 0.225% (0.200% at December 31, 2022). The unused portion of the revolving loan amounted to \$109,431 at December 31, 2022. The Company is also required to pay, as applicable, letter of credit fees, administrative agent fees, and other fees to the arrangers and lenders.

Costs associated with the issuance of the revolving loans are capitalized and amortized on a straight-line basis over the term of the 2022 Credit Agreement. Capitalized costs net of accumulated amortization totaled \$1,317 and \$421 at December 31, 2022 and December 31, 2021, respectively, and are included in other assets on the condensed consolidated balance sheets. Amortization expense pertaining to these costs totaled \$335, \$282, and \$282 for the years ended December 31, 2022, 2021, and 2020, respectively, and are included in "Interest expense" in the accompanying condensed consolidated statements of earnings.

The 2022 Credit Agreement contains quarterly covenants requiring the consolidated leverage ratio to be less than a certain maximum ratio and the consolidated interest coverage ratio to exceed a certain minimum ratio. At December 31, 2022, the Company was in compliance with these covenants. Indebtedness under the Company's loan agreements is secured by assets of the Company.

NOTE 9 - NET EARNINGS PER COMMON SHARE

The following presents a reconciliation of the net earnings and shares used in calculating basic and diluted net earnings per common share:

	Year Ended December 31,		
	2022	2021	2020
Net Earnings - Basic and Diluted	\$ 105,367	\$ 96,104	\$ 84,623
<i>Share (000s)</i>			
Weighted Average Common Shares - Basic	32,019	32,215	32,176
Effect of Dilutive Securities – Stock Options, Restricted Stock, and Performance Shares	374	457	327
Weighted Average Common Shares - Diluted	<u>32,393</u>	<u>32,672</u>	<u>32,503</u>
Net Earnings Per Share - Basic	\$ 3.29	\$ 2.98	\$ 2.63
Net Earnings Per Share - Diluted	\$ 3.25	\$ 2.94	\$ 2.60

The number of anti-dilutive shares were 371,513, 155,294, and 204,672 for 2022, 2021, and 2020. Anti-dilutive shares could potentially dilute basic earnings per share in future periods and therefore, were not included in diluted earnings per share.

NOTE 10 - INCOME TAXES

The Company's effective tax rate for 2022, 2021 and 2020 was 21.2%, 23.3%, and 20.5%, respectively. The decrease from 2021 to 2022 is primarily due to an increase in certain tax credits and deductions and certain lower state taxes.

On March 27, 2020, Congress passed the Coronavirus Aid, Relief, and Economic Security Act, and on December 31, 2020, Congress passed an additional round of COVID relief legislation as part of the Bipartisan-Bicameral Omnibus COVID Relief Deal. The Company has reviewed the change in law and determined that it does not have a significant impact on the Company's tax provision or financial statements. In addition, Balchem will continue to evaluate and analyze the impact of the U.S. Tax Cuts and Jobs Act that was enacted on December 22, 2017 and the additional guidance that has been issued, and may be issued, by the U.S. Department of Treasury, the SEC, and/or the Financial Accounting Standards Board ("FASB") regarding this act.

The Company considers the undistributed earnings of certain non-U.S. subsidiaries to be indefinitely reinvested outside of the United States on the basis of estimates that future domestic cash generation will be sufficient to meet future domestic cash needs and the Company's specific plans for reinvestment of those subsidiary earnings. The Company projects that its foreign earnings will be utilized offshore for working capital and future foreign growth. The determination of the unrecognized deferred tax liability on those undistributed earnings is not practicable due to its legal entity structure and the complexity of U.S. and local country tax laws. If the Company decides to repatriate the undistributed foreign earnings, it will need to recognize the income tax effects in the period it changes its assertion on indefinite reinvestment.

Income tax expense consists of the following:

	<u>2022</u>	<u>2021</u>	<u>2020</u>
Current:			
Federal	\$ 26,423	\$ 25,019	\$ 19,249
Foreign	7,103	7,553	3,399
State	3,964	3,664	3,590
Deferred:			
Federal	(7,532)	(3,709)	(3,017)
Foreign	(215)	(3,038)	167
State	(1,361)	(360)	(1,594)
Total income tax provision	<u>\$ 28,382</u>	<u>\$ 29,129</u>	<u>\$ 21,794</u>

The provision for income taxes differs from the amount computed by applying the Federal statutory rate of 21% for 2022, 2021, and 2020 to earnings before income tax expense due to the following:

	<u>2022</u>	<u>2021</u>	<u>2020</u>
Income tax at Federal statutory rate	\$ 28,087	\$ 26,299	\$ 22,348
State income taxes, net of Federal income taxes	1,862	2,406	2,288
Stock Options	(676)	(924)	(1,529)
FDII	(1,778)	(1,540)	(1,400)
Foreign rate differential	2,066	1,188	413
Other	(1,179)	1,700	(326)
Total income tax provision	<u>\$ 28,382</u>	<u>\$ 29,129</u>	<u>\$ 21,794</u>

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax (liabilities) at December 31, 2022 and 2021 were as follows:

	<u>2022</u>	<u>2021</u>
Deferred tax assets:		
Inventories	\$ 1,038	\$ 495
Restricted stock and stock options	3,932	4,082
Lease liabilities	5,439	1,807
Foreign currency and interest rate swaps	—	649
Research and development	4,134	—
Other	3,717	3,657
Total deferred tax assets	<u>18,260</u>	<u>10,690</u>
Deferred tax (liabilities):		
Amortization	\$ (46,688)	\$ (28,133)
Depreciation	(25,097)	(25,484)
Prepaid expenses	(462)	(733)
Foreign currency and interest rate swaps	(1,456)	—
Right of use assets	(5,324)	(1,769)
Other	(1,995)	(1,026)
Total deferred tax (liabilities)	<u>(81,022)</u>	<u>(57,145)</u>
Valuation allowance	<u>(22)</u>	<u>—</u>
Net deferred tax (liability)	<u>\$ (62,784)</u>	<u>\$ (46,455)</u>

In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment. Based upon the level of historical taxable income and projections for future taxable income over the periods in which the deferred tax assets are deductible, management believes it is more likely than not the Company will not realize the benefits of these deductible differences. The amount of deferred tax asset realizable, however, could change if management's estimate of future taxable income should change.

As of December 31, 2022, the Company has state income tax net operating loss (NOL) carryforwards of \$366. The state NOL carryforwards will expire between 2026 and 2035. The Company believes that the benefit from the state NOL carryforwards will not be realized, therefore a valuation allowance has been established in the amount of \$22. The Company also acquired an insignificant amount of NOL carryforwards with the acquisition of Chemogas Holding NV, a privately held specialty gases company headquartered in Grimbergen, Belgium ("Chemogas").

Provisions of ASC 740-10 clarify whether or not to recognize assets or liabilities for tax positions taken that may be challenged by a tax authority. A reconciliation of the beginning and ending amount of unrecognized tax benefits, which is included in other long-term obligations on the Company's consolidated balance sheets, is as follows:

	<u>2022</u>	<u>2021</u>	<u>2020</u>
Balance at beginning of period	\$ 5,881	\$ 5,335	\$ 4,762
Increases for tax positions of prior years	2,194	806	267
Decreases for tax positions of prior years	(2,260)	(260)	(391)
Increases for tax positions related to current year	—	—	697
Balance at end of period	<u>\$ 5,815</u>	<u>\$ 5,881</u>	<u>\$ 5,335</u>

All of Balchem's unrecognized tax benefits, if recognized in future periods, would impact the Company's effective tax rate in such future periods.

The Company recognizes both interest and penalties as part of the income tax provision. During the year ended December 31, 2022, these amounts were reduced by \$371. During the years ended December 31, 2021 and 2020, total interest and penalties amounted to approximately \$262 and \$232, respectively. As of December 31, 2022 and 2021, accrued interest and penalties were \$1,735 and \$2,106, respectively.

Balchem files income tax returns in the U.S. and in various states and foreign countries. In the major jurisdictions where the Company operates, it is generally no longer subject to income tax examinations by tax authorities for years before 2018 and management does not anticipate any material change in the total amount of unrecognized tax benefits to occur within the next twelve months.

NOTE 11 - SEGMENT INFORMATION

Balchem Corporation reports three reportable segments: Human Nutrition and Health, Animal Nutrition and Health, and Specialty Products. Sales and production of products outside of our reportable segments and other minor business activities are included in "Other and Unallocated."

Human Nutrition and Health

The Human Nutrition and Health ("HNH") segment provides human grade choline nutrients and mineral amino acid chelated products through this segment for nutrition and health applications. Choline is recognized to play a key role in the development and structural integrity of brain cell membranes in infants, processing dietary fat, reproductive development and neural functions, such as memory and muscle function. The Company's mineral amino acid chelates, specialized mineral salts, and mineral complexes are used as raw materials for inclusion in premier human nutrition products; proprietary technologies have been combined to create an organic molecule in a form the body can readily assimilate. Sales growth for human nutrition applications is reliant on differentiation from lower-cost competitive products through scientific data, intellectual property and customers' appreciation of brand value. Consequently, the Company makes investments in such activities for long-term value differentiation. This segment also serves the food and beverage industry for beverage, bakery, dairy, confectionary, and savory manufacturers. The Company partners with its customers from ideation through commercialization to bring on-trend beverages, baked goods, confections, dairy and meat products to market. The Company has expertise in trends analysis and product development. With its strong manufacturing capabilities in customized spray dried and emulsified powders, extrusion and agglomeration, blended lipid systems, liquid flavor delivery systems, juice and dairy bases, chocolate systems, ice cream bases and variegates, the Company is a one-stop solutions provider for beverage and dairy product development needs. Additionally, this segment provides microencapsulation solutions to a variety of applications in food, pharmaceutical and nutritional ingredients to enhance performance of nutritional fortification, processing, mixing, and packaging applications and shelf-life. Major product applications are baked goods, refrigerated and frozen dough systems, processed meats, seasoning blends, confections, sports and protein bars, dietary plans, and nutritional supplements. The Company also creates cereal systems for ready-to-eat cereals, grain-based snacks, and cereal based ingredients. Through the Kappa and Bergstrom acquisitions, respectively, this segment recently began manufacturing specialty vitamin K2, which is a fast-growing specialty vitamin that plays a crucial role in the human body for bone health, heart health and immunity, and MSM, which is a widely used nutritional ingredient that provides benefits for joint health, sports nutrition, skin and beauty, and healthy aging.

Animal Nutrition and Health

The Company's Animal Nutrition and Health ("ANH") segment provides nutritional products derived from its microencapsulation and chelation technologies in addition to the essential nutrient choline chloride. For ruminant animals, the Company's microencapsulated products boost health and milk production by delivering nutrient supplements that are biologically available, providing required nutritional levels. The Company's proprietary chelation technology provides enhanced nutrient absorption for various species of production and companion animals and is marketed for use in animal feed throughout the world. ANH also manufactures and supplies choline chloride, an essential nutrient for monogastric animal health, predominantly to the poultry, pet and swine industries. Choline, which is manufactured and sold in both dry and aqueous forms, plays a vital role in the metabolism of fat. In poultry, choline deficiency can result in reduced growth rates and perosis in young birds, while in swine production choline is a necessary and required component of gestating and lactating sow diets for both liver health and prevention of leg deformity. Through the Bergstrom acquisition, this segment recently began manufacturing MSM, which is a widely used nutritional ingredient that provides benefits for pet health.

Sales of value-added encapsulated products are highly dependent on overall industry economics as well as the Company's ability to leverage the results of university and field research on the animal health and production benefits of our products. Management believes that success in the commodity-oriented choline chloride marketplace is highly dependent on the Company's ability to maintain its strong reputation for excellent product quality and customer service. The Company continues to drive production efficiencies in order to maintain its competitive-cost position to effectively compete in a competitive global marketplace.

Specialty Products

The Company re-packages and distributes a number of performance gases and chemicals for various uses by its customers, notably ethylene oxide, propylene oxide, and ammonia. Ethylene oxide is sold as a sterilant gas, primarily for use in the health care industry. It is used to sterilize a wide range of medical devices because of its versatility and effectiveness in treating hard or soft surfaces, composites, metals, tubing and different types of plastics without negatively impacting the performance of the device being sterilized. Contract sterilizers and medical device manufacturers are principal customers for this product. Propylene oxide is marketed and sold as a fumigant to aid in the control of insects and microbiological spoilage; and to reduce bacterial and mold contamination in certain shelled and processed nut meats, processed spices, cacao beans, cocoa powder, raisins, figs and prunes, and for various chemical synthesis applications, such as increasing paint durability and manufacturing specialty starches and textile coatings. Ammonia is used primarily as a refrigerant, and also for heat treatment of metals and various chemical synthesis applications, and is distributed in reusable and recyclable drum and cylinder packaging approved for use in the countries these products are shipped to.

The Company's performance gases and chemicals are distributed worldwide in specially designed, reusable and recyclable drum and cylinder packaging, to assure compliance with safety, quality and environmental standards as outlined by the applicable regulatory agencies in the countries our products are shipped to. The Company's inventory of these specially built drums and cylinders, along with its five filling facilities, represents a significant capital investment. The Company also sells single use canisters for use in sterilizing re-usable devices typically processed in autoclave units in hospitals.

The Company's micronutrient agricultural nutrition business sells chelated minerals primarily to producers of high value crops. The Company has a unique and patented two-step approach to solving mineral deficiency in plants to optimize health, yield and shelf-life. First, the Company determines optimal mineral balance for plant health. The Company then has a foliar applied Metalosate® product range, utilizing patented amino acid chelate technology. Its products quickly and efficiently deliver mineral nutrients. As a result, the farmer/grower gets healthier crops that are more resistant to disease and pests, larger yields and healthier food for the consumer with extended shelf life for produce being shipped long distances.

The segment information is summarized as follows:

Business Segment Assets

	2022	2021
Human Nutrition and Health	\$ 1,170,238	\$ 727,131
Animal Nutrition and Health	175,972	158,971
Specialty Products	177,187	184,628
Other and Unallocated ⁽¹⁾	101,115	128,595
Total	\$ 1,624,512	\$ 1,199,325

Business Segment Net Sales

	2022	2021	2020
Human Nutrition and Health	\$ 527,131	\$ 442,733	\$ 400,330
Animal Nutrition and Health	262,297	226,776	192,191
Specialty Products	131,438	117,020	103,566
Other and Unallocated ⁽²⁾	21,492	12,494	7,557
Total	\$ 942,358	\$ 799,023	\$ 703,644

Business Segment Earnings Before Income Taxes

	2022	2021	2020
Human Nutrition and Health	\$ 82,125	\$ 76,031	\$ 61,397
Animal Nutrition and Health	36,056	26,179	29,979
Specialty Products	32,789	30,020	26,801
Other and Unallocated ⁽²⁾	(5,784)	(4,728)	(7,030)
Interest and other expense	(11,437)	(2,269)	(4,730)
Total	<u>\$ 133,749</u>	<u>\$ 125,233</u>	<u>\$ 106,417</u>

Depreciation/Amortization

	2022	2021	2020
Human Nutrition and Health	\$ 33,728	\$ 30,012	\$ 32,117
Animal Nutrition and Health	6,685	7,414	7,187
Specialty Products	7,507	8,332	9,699
Other and Unallocated ⁽²⁾	3,928	3,121	2,278
Total	<u>\$ 51,848</u>	<u>\$ 48,879</u>	<u>\$ 51,281</u>

Capital Expenditures

	2022	2021	2020
Human Nutrition and Health	\$ 33,668	\$ 23,714	\$ 22,758
Animal Nutrition and Health	10,809	8,100	6,039
Specialty Products	4,004	3,804	2,860
Other and Unallocated ⁽²⁾	605	524	423
Total	<u>\$ 49,086</u>	<u>\$ 36,142</u>	<u>\$ 32,080</u>

⁽¹⁾ Other and Unallocated assets consist of certain cash, capitalized loan issuance costs, other assets, investments, and income taxes, which the Company does not allocate to its individual business segments. It also includes assets associated with a few minor businesses which individually do not meet the quantitative thresholds for separate presentation.

⁽²⁾ Other and Unallocated consists of a few minor businesses which individually do not meet the quantitative thresholds for separate presentation and corporate expenses that have not been allocated to a segment. Unallocated corporate expenses consist of: (i) Transaction and integration costs, ERP implementation costs, and unallocated legal fees totaling \$3,581, \$1,264 and \$2,410 for years ended December 31, 2022, 2021 and 2020, respectively, and (ii) Unallocated amortization expense of \$2,951, \$2,510, and \$1,606 for years ended December 31, 2022, 2021, and 2020, respectively, related to an intangible asset in connection with a company-wide ERP system implementation.

NOTE 12 - REVENUE

Revenue Recognition

Revenues are recognized when control of the promised goods is transferred to customers, in an amount that reflects the consideration we expect to realize in exchange for those goods.

The following table presents revenues disaggregated by revenue source. Sales and usage-based taxes are excluded from revenues:

	2022	2021	2020
Product Sales	\$ 894,318	\$ 762,085	\$ 666,193
Co-manufacturing	40,621	27,994	29,063
Bill and Hold	—	—	1,158
Consignment	4,227	4,439	2,939
Product Sales Revenue	939,166	794,518	699,353
Royalty Revenue	3,192	4,505	4,291
Total Revenue	<u>\$ 942,358</u>	<u>\$ 799,023</u>	<u>\$ 703,644</u>

The following table presents revenues disaggregated by geography, based on customers' delivery addresses:

	2022	2021	2020
United States	\$ 682,238	\$ 584,661	\$ 516,347
Foreign Countries	260,120	214,362	187,297
Total	<u>\$ 942,358</u>	<u>\$ 799,023</u>	<u>\$ 703,644</u>

Product Sales Revenues

The Company's primary operation is the manufacturing and sale of health and wellness ingredient products, in which the Company receives an order from a customer and fulfills that order. The Company's product sales are considered point-in-time revenue and consist of four sub-streams: product sales, co-manufacturing, bill and hold, and consignment.

Under the co-manufacturing agreements, the Company is responsible for the manufacture of a finished good where the customer provides the majority of the raw materials. The Company controls the manufacturing process and the ultimate end-product before it is shipped to the customer. Based on these factors, the Company has determined that it is the principal in these agreements and therefore revenue is recognized in the gross amount of consideration the Company expects to be entitled for the goods provided.

Royalty Revenues

Royalty revenue consists of agreements with customers to use the Company's intellectual property in exchange for a sales-based royalty. Royalties are considered over time revenue and are recorded in the HNH segment.

Contract Liabilities

The Company records contract liabilities when cash payments are received or due in advance of performance, including amounts which are refundable.

The Company's payment terms vary by the type and location of customers and the products offered. The term between invoicing and when payment is due is not significant. For certain products or services and customer types, the Company requires payment before the products are delivered to the customer.

Practical Expedients and Exemptions

The Company generally expenses sales commissions when incurred because the amortization period would have been one year or less. These costs are recorded within selling and marketing expenses.

The Company does not disclose the value of unsatisfied performance obligations for (i) contracts with an original expected length of one year or less and (ii) contracts for which the Company recognizes revenue at the amount to which it has the right to invoice for products shipped.

NOTE 13 - SUPPLEMENTAL CASH FLOW INFORMATION

Cash paid during the year for:

	2022	2021	2020
Income taxes	\$ 33,016	\$ 25,355	\$ 22,637
Interest	\$ 11,879	\$ 4,547	\$ 4,666

Non-cash financing and investing activities:

	2022	2021	2020
Dividends payable	\$ 23,129	\$ 20,886	\$ 18,941
Contingent consideration liability	\$ 11,872	\$ —	\$ —

NOTE 14 – ACCUMULATED OTHER COMPREHENSIVE INCOME

The changes in accumulated other comprehensive income (loss) were as follows:

	Years Ended December 31,		
	2022	2021	2020
Net foreign currency translation adjustment	\$ (4,799)	\$ (11,255)	\$ 12,829
Net change of cash flow hedge (see Note 20 for further information)			
Unrealized gain/(loss) on cash flow hedge	3,564	2,707	(3,094)
Tax	(868)	(654)	809
Net of tax	2,696	2,053	(2,285)
Net change in postretirement benefit plan (see Note 15 for further information)			
Prior service credit and gain arising during the period	(41)	(4)	(503)
Amortization of prior service credit	9	74	74
Amortization of loss	(2)	(21)	(50)
Total before tax	(34)	49	(479)
Tax	(24)	(13)	127
Adjustment ⁽¹⁾	—	—	(455)
Net of tax	(58)	36	(807)
Total other comprehensive (loss)/income	<u>\$ (2,161)</u>	<u>\$ (9,166)</u>	<u>\$ 9,737</u>

⁽¹⁾ One-time adjustment to the postretirement account.

Included in "Net foreign currency translation adjustment" were gains/(losses) of \$3,851, \$4,766, and \$(4,882), related to a net investment hedge, net of taxes of \$(1,236), \$(1,527), and \$1,579, for the years ended December 31, 2022, 2021, and 2020, respectively. See Note 20, Derivative Instruments and Hedging Activities.

Accumulated other comprehensive (loss)/income at December 31, 2022 consisted of the following:

	Foreign currency translation adjustment	Cash flow hedge	Postretirement benefit plan	Total
Balance December 31, 2021	\$ (3,602)	\$ (1,631)	\$ 240	\$ (4,993)
Other comprehensive (loss)/gain	(4,799)	2,696	(58)	(2,161)
Balance December 31, 2022	<u>\$ (8,401)</u>	<u>\$ 1,065</u>	<u>\$ 182</u>	<u>\$ (7,154)</u>

NOTE 15 - EMPLOYEE BENEFIT PLANS

Defined Contribution Plans

The Company sponsored two 401(k) savings plans for eligible employees, which were merged into one plan on January 1, 2021. The remaining plan allows participants to make pretax contributions and the Company matches certain percentages of those pretax contributions. The remaining plan also has a discretionary profit sharing portion and matches 401(k) contributions with shares of the Company's Common Stock. All amounts contributed to the plan are deposited into a trust fund administered by independent trustees. On June 21, 2022, the Company completed the acquisition of Kappa, which sponsors one defined contribution plan for its employees. In addition, on August 30, 2022, the Company completed the acquisition of Bergstrom, which sponsors one defined contribution plan for its employees. The plan allows participants to make pretax and after tax contributions. Bergstrom matches certain percentages of those contributions. The Company provided for profit sharing contributions and matching 401(k) savings plan contributions of \$1,151 and \$4,363 in 2022, \$1,459 and \$4,142 in 2021, and \$1,022 and \$3,751 in 2020, respectively.

Postretirement Medical Plans

The Company provides postretirement benefits in the form of two unfunded postretirement medical plans; one that is under a collective bargaining agreement and covers eligible retired employees of the Verona, Missouri facility and a plan for those named as executive officers in the Company's proxy statement. The Company uses a December 31 measurement date for its postretirement medical plans. In accordance with ASC 715, "Compensation—Retirement Benefits," the Company is required to recognize the over funded or underfunded status of a defined benefit post retirement plan (other than a multiemployer plan) as an asset or liability in its statement of financial position, and to recognize changes in that funded status in the year in which the changes occur through comprehensive income.

The actuarial recorded liabilities for such unfunded postretirement benefits are as follows:

Change in benefit obligation:

	2022	2021
Benefit obligation at beginning of year	\$ 1,293	\$ 1,374
Service cost with interest to end of year	79	87
Interest cost	26	23
Participant contributions	27	28
Benefits paid	(69)	(426)
Actuarial loss	109	207
Benefit obligation at end of year	<u>\$ 1,465</u>	<u>\$ 1,293</u>

Change in plan assets:

	2022	2021
Fair value of plan assets at beginning of year	\$ —	\$ —
Employer contributions	42	398
Participant contributions	27	28
Benefits paid	(69)	(426)
Fair value of plan assets at end of year	<u>\$ —</u>	<u>\$ —</u>

Amounts recognized in consolidated balance sheet:

	2022	2021
Accumulated postretirement benefit obligation	\$ (1,465)	\$ (1,293)
Fair value of plan assets	—	—
Funded status	(1,465)	(1,293)
Unrecognized prior service cost	74	74
Unrecognized net gain	(24)	(50)
Net amount recognized in consolidated balance sheet (after ASC 715) (included in other long-term obligations)	\$ (1,465)	\$ (1,293)
Accrued postretirement benefit cost (included in other long-term obligations)	N/A	N/A

Components of net periodic benefit cost:

	2022	2021	2020
Service cost with interest to end of year	\$ 79	\$ 87	\$ 68
Interest cost	26	23	26
Amortization of prior service cost	9	74	74
Amortization of gain	(2)	(24)	(50)
Total net periodic benefit cost	<u>\$ 112</u>	<u>\$ 160</u>	<u>\$ 118</u>

Estimated future employer contributions and benefit payments are as follows:

Year	
2023	\$ 118
2024	151
2025	149
2026	113
2027	115
Years 2028-2032	622

Assumptions to determine benefit obligations:

	2022	2021
Discount rate	4.40 %	2.10 %

Assumptions to determine net cost:

	2022	2021	2020
Discount rate	2.10 %	1.75 %	2.50 %

Defined Benefit Pension Plans

The Company contributes to one multiemployer defined benefit plan under the terms of a collective-bargaining agreement covering its union-represented employees of the Verona, Missouri facility. The risks of participation in this multiemployer plan are different from single-employer plans in the following aspects: (a) assets contributed to the multiemployer plan by one employer may be used to provide benefits to employees of other participating employers, (b) if a participating employer stops contributing to the plan, the unfunded obligations of the plan may be borne by the remaining participating employers, and (c) if the Company was to stop participating in its multiemployer plan, the Company would be required to pay that plan an amount based on the underfunded status of the plan, referred to as the withdrawal liability.

The Company's participation in this plan for the annual period ended December 31, 2022 is outlined in the table below. The "EIN/Pension Plan Number" column provides the Employee Identification Number (EIN). The zone status is based on information that the Company received from the plan and is certified by the plan's actuary. Among other factors, plans in the red zone or critical and declining zone are generally less than 65 percent funded, plans in the yellow zone are less than 80 percent funded, and plans in the green zone are at least 80 percent funded. The "FIP/RP Status Pending/Implemented" column indicates plans for which a financial improvement plan (FIP) or a rehabilitation plan (RP) is either pending or has been implemented. The last column lists the expiration date of the collective-bargaining agreement to which the plan is subject. Finally, the period-to-period comparability of the contributions for 2022 and 2021 was affected by a 4.0% increase in the 2022 contribution rate. There have been no other significant changes that affect the comparability of 2022 and 2021 contributions. The Company does not represent more than 5% of the contributions to this pension fund.

Pension Fund	EIN/ Pension Plan Number	Pension Plan Protection Act Zone Status		FIP/RP Status Pending/Implemented	Contributions of Balchem Corporation			Surcharge Imposed	Expiration Date of Collective-Bargaining Agreement
		2022	2021		2022	2021	2020		
Central States, Southeast and Southwest Areas Pension Fund	36-6044243	Critical & Declining as of 1/1/22	Critical & Declining as of 1/1/21	Implemented	\$939	\$816	\$774	No	7/12/2025

The Company provides an unfunded defined benefit pension plan for employees working in Belgium. The plan provides for the payment of a lump sum at retirement or payments in case of death of the covered employees.

The actuarial recorded liabilities for such unfunded defined benefit pension plan are as follows:

Change in benefit obligation:

	2022	2021
Benefit obligation at beginning of year	\$ 1,859	\$ 2,053
Service cost with interest to end of year	44	67
Interest cost	17	14
Participant contributions	27	24
Benefits paid	(60)	(18)
Actuarial gain	(194)	(127)
Exchange rate changes	(104)	(154)
Benefit obligation at end of year	<u>\$ 1,589</u>	<u>\$ 1,859</u>

Change in plan assets:

	2022	2021
Fair value of plan assets at beginning of year	\$ 1,175	\$ 1,103
Actual return on plan assets	26	76
Employer contributions	94	73
Participant contributions	27	24
Benefits paid	(60)	(18)
Exchange rate changes	(66)	(83)
Fair value of plan assets at end of year	<u>\$ 1,196</u>	<u>\$ 1,175</u>

Amounts recognized in consolidated balance sheet:

	2022	2021
Benefit obligation	\$ (1,589)	\$ (1,859)
Fair value of plan assets	1,196	1,175
Funded status	(393)	(684)
Unrecognized prior service cost	N/A	N/A
Unrecognized net (gain)/loss	N/A	N/A
Net amount recognized in consolidated balance sheet (after ASC 715) (included in other long-term obligations)	\$ (393)	\$ (684)
Accrued postretirement benefit cost (included in other long-term obligations)	N/A	N/A

Components of net periodic benefit cost:

	2022	2021	2020
Service cost with interest to end of year	\$ 44	\$ 67	\$ 104
Interest cost	17	14	20
Expected return on plan assets	(37)	(34)	(14)
Amortization of prior service cost	—	—	—
Amortization of net loss	—	3	—
Total net periodic benefit cost	<u>\$ 24</u>	<u>\$ 50</u>	<u>\$ 110</u>

Estimated future benefit payments are as follows:

Year	
2023	\$ 1
2024	—
2025	—
2026	—
2027	—
Years 2028-2032	24

Assumptions to determine benefit obligations:

	2022	2021
Discount rate	4.00 %	1.00 %

Assumptions to determine net cost:

	2022	2021	2020
Discount rate	1.00 %	0.75 %	1.00 %
Expected return on assets	3.25 %	3.25 %	1.00 %

Deferred Compensation Plan

The Company maintains an unfunded, non-qualified deferred compensation plan for the benefit of a select group of management or highly compensated employees. Assets of the plan are held in a rabbi trust, which are subject to additional risk of loss in the event of bankruptcy or insolvency of the Company. The deferred compensation liability as of December 31, 2022 and 2021 was \$8,543 and \$6,270, respectively, and was included in other long-term obligations on the Company's balance sheet. The related rabbi trust assets were \$8,547 and \$6,267 as of December 31, 2022 and 2021, respectively, and were included in other non-current assets on the Company's consolidated balance sheets.

NOTE 16 - COMMITMENTS AND CONTINGENCIES

The Company is obligated to make rental payments under non-cancelable operating and finance leases. Aggregate future minimum rental payments required under these leases at December 31, 2022 are disclosed in Note 19, Leases.

The Company's Verona, Missouri facility, while held by a prior owner, was designated by the EPA as a Superfund site and placed on the National Priorities List in 1983, because of dioxin contamination on portions of the site. Remediation was conducted by the prior owner under the oversight of the EPA and the Missouri Department of Natural Resources. While the Company must maintain the integrity of the capped areas in the remediation areas on the site, the prior owner is responsible for completion of any further Superfund remedy. The Company is indemnified by the sellers under its May 2001 asset purchase agreement covering its acquisition of the Verona, Missouri facility for potential liabilities associated with the Superfund site, and one of the sellers, in turn, has the benefit of certain contractual indemnification by the prior owner that executed the above-described Superfund remedy. In February 2022, BCP Ingredients, Inc. ("BCP"), the Company subsidiary that operates the site, received Special Notice Letter from EPA for the performance of a focused remedial investigation/feasibility study ("RI/FS") at the site with regard to the presence of certain contaminants, including 1,4 dioxane. BCP, along with the prior owner of the Verona facility submitted a joint response to the notice in November 2022.

From time to time, the Company is a party to various litigation, claims and assessments. Management believes that the ultimate outcome of such matters will not have a material effect on the Company's consolidated financial position, results of operations, or liquidity.

NOTE 17 – FAIR VALUE OF FINANCIAL INSTRUMENTS

The Company has a number of financial instruments, none of which are held for trading purposes. The Company estimates that the fair value of all financial instruments at December 31, 2022 and 2021 does not differ materially from the aggregate carrying values of its financial instruments recorded in the accompanying consolidated balance sheets. The estimated fair value amounts have been determined by the Company using available market information and appropriate valuation methodologies. Considerable judgment is necessarily required in interpreting market data to develop the estimates of fair value, and, accordingly, the estimates are not necessarily indicative of the amounts that the Company could realize in a current market exchange. The carrying value of debt approximates fair value as the interest rate is based on market and the Company's consolidated leverage ratio. The Company's financial instruments also include cash equivalents, accounts receivable, accounts payable, and accrued liabilities, which are carried at cost and approximate fair value due to the short-term maturity of these instruments. Cash and cash equivalents at December 31, 2022 and 2021 included \$934 and \$933 in money market funds, respectively.

Non-current assets at December 31, 2022 and 2021 included \$8,547 and \$6,267, respectively, of rabbi trust funds related to the Company's deferred compensation plan. The money market and rabbi trust funds are valued using level one inputs, as defined by ASC 820, "Fair Value Measurement."

The contingent consideration liabilities included on the balance sheet at of December 31, 2022 amount to \$11,400 and were valued using level three inputs, as defined by ASC 820, "Fair Value Measurement".

The Company also has derivative financial instruments, consisting of a cross-currency swap and an interest rate swap, which are included in derivative assets or derivative liabilities, in the consolidated balance sheets (see Note 20, Derivative Instruments and Hedging Activities). The fair values of these derivative instruments are determined based on Level 2 inputs, using significant inputs that are observable either directly or indirectly, including interest rate curves and implied volatilities. The derivative assets related to the cross-currency swap and the interest rate swap were \$4,587 and \$1,406 at December 31, 2022, respectively. The derivative liabilities related to the cross-currency swap and the interest rate swap were \$500 and \$2,158 at December 31, 2021, respectively.

NOTE 18 – RELATED PARTY TRANSACTIONS

The Company provides services under a contractual agreement to St. Gabriel CC Company, LLC. These services include accounting, information technology, quality control, and purchasing services, as well as operation of the St. Gabriel CC Company, LLC plant. The Company also sells raw materials to St. Gabriel CC Company, LLC. These raw materials are used in the production of finished goods that are, in turn, sold by Saint Gabriel CC Company, LLC to the Company for resale to unrelated parties. As such, the sale of these raw materials to St. Gabriel CC Company, LLC in this scenario lacks economic substance and therefore the Company does not include them in net sales within the condensed consolidated statements of earnings.

Payments for the services the Company provided amounted to \$4,213, \$3,637, and \$3,396, respectively, for the years ended December 31, 2022, 2021, and 2020. The raw materials purchased and subsequently sold amounted to \$39,853, \$27,915, and \$13,495, respectively, for the years ended December 31, 2022, 2021, and 2020. These services and raw materials are primarily recorded in cost of goods sold net of the finished goods received from St. Gabriel CC Company, LLC of \$29,062, \$22,043, and \$12,190, respectively for the years ended December 31, 2022, 2021, and 2020. At December 31, 2022 and 2021, the Company had receivables of \$8,820 and \$10,504, respectively, recorded in accounts receivable from St. Gabriel CC Company, LLC for services rendered and raw materials sold. The Company also had payables of \$5,224 and \$7,552, respectively, recorded in accounts payable for finished goods received from St. Gabriel CC Company, LLC. In addition, the Company had receivables in the amount of \$164 related to non-contractual monies owed from St. Gabriel CC Company, LLC, recorded in receivables as of December 31, 2021. There were no such receivables as of December 31, 2022. The Company had payables in the amount of \$296 related to non-contractual monies owed to St. Gabriel CC Company, LLC, recorded in accounts payable as of December 31, 2022 and 2021.

NOTE 19 – LEASES

The Company has both real estate leases and equipment leases. The main types of equipment leases include forklifts, trailers, printers and copiers, railcars, and trucks. Leases are categorized as both operating leases and finance leases. As a result of electing the practical expedient within ASU 2016-02, variable lease payments are combined and recognized on the balance sheet in the event that those charges and any related increases are explicitly stated in the lease. Such payments include common area maintenance charges, property taxes, and insurance charges and are recorded in the right of use asset and corresponding liability when the payments are stated in the lease with (a) fixed or in-substance fixed amounts, or (b) a variable payment based on an index or rate. Due to the acquisitive nature of the Company and the potential for synergies upon integration of acquired entities, the Company determined that the reasonably certain criterion could not be met for any renewal periods beginning two years from December 31, 2022. In addition, the Company has historically not been exercising purchase options under the equipment leases as it does not make economic sense to buy the equipment. Instead, the Company has historically replaced the equipment with new leases. Therefore, the Company determined that the reasonably certain criterion could not be met as it relates to purchase options. The Company has no residual value guarantees in lease transactions.

On June 22, 2022, the Company signed a ten-year real estate sublease for approximately 40,000 square feet of office space, which serves as the Company's new corporate headquarters and will also serve as a laboratory facility. The sublease commenced in the fourth quarter of 2022 and the Company recognized a right of use asset and lease liability as of the commencement date in accordance with ASC 842, Lease Accounting.

The Company did not identify any embedded leases. As indicated above, the Company elected the practical expedient to combine lease and non-lease components and recognizes the combined amount on the consolidated balance sheet. Management determined that since the Company has a centralized treasury function, the parent company would either fund or guarantee a subsidiary's loan for borrowing over a similar term. As such, the Company's management determined it is appropriate to utilize a corporate based borrowing rate for all locations. The Company developed four tranches of leases based on lease terms and these tranches reflect the composition of the current lease portfolio. The Company's borrowing history shows that interest rates of a term loan or a line of credit depend on the duration of the loan rather than the nature of the assets purchased by those funds. Based on this understanding, the Company elected to use a portfolio approach to discount rates, applying corporate rates to the tranches of leases based on lease terms. Based on the Company's risk rating, the company applied the following discount rates for new leases entered into during 2022: (1) 1-2 years, 1.45% (2) 3-4 years, 2.04% (3) 5-9 years, 2.38% and (4) 10+ years, 3.10%.

In connection with an acquisition in 2019, the Company assumed a finance lease commitment for a warehouse, with an expiration date of March 31, 2033. The warehouse can be purchased at a pre-determined price beginning in 2023.

Right of use assets and lease liabilities at December 31, 2022 and 2021 are summarized as follows:

<i>Right of use assets</i>	2022	2021
Operating leases	\$ 17,094	\$ 6,929
Finance leases	2,338	2,359
Total	\$ 19,432	\$ 9,288

<i>Lease liabilities - current</i>	2022	2021
Operating leases	\$ 3,796	\$ 2,194
Finance leases	226	167
Total	\$ 4,022	\$ 2,361

<i>Lease liabilities - non-current</i>	2022	2021
Operating leases	\$ 13,806	\$ 4,811
Finance leases	2,213	2,303
Total	\$ 16,019	\$ 7,114

For the years ended December 31, 2022, 2021, and 2020, the Company's total lease costs were as follows, which included both amounts recognized in profits or losses during the period and amounts capitalized on the balance sheet, and the cash flows arising from lease transactions:

	Year ended December 31,		
	2022	2021	2020
Lease Cost			
Operating lease cost	\$ 4,478	\$ 3,143	\$ 3,105
Finance Lease cost			
Amortization of ROU asset	210	210	210
Interest on lease liabilities	125	129	137
Total finance lease	335	339	347
Total lease cost	<u>\$ 4,813</u>	<u>\$ 3,482</u>	<u>\$ 3,452</u>
Cash paid for amounts included in the measurement of lease liabilities			
Operating cash flows from operating leases	\$ 4,269	\$ 3,097	\$ 2,864
Operating cash flows from finance leases	125	129	137
Financing cash flows from finance leases	177	159	151
	<u>\$ 4,571</u>	<u>\$ 3,385</u>	<u>\$ 3,152</u>
ROU assets obtained in exchange for new operating lease liabilities, net of ROU asset disposals	\$ 11,488	\$ 3,804	\$ 1,042
ROU assets obtained in exchange for new finance lease liabilities, net of ROU asset disposals	\$ —	\$ —	\$ 2,782
Weighted-average remaining lease term - operating leases	5.63 years	4.21 years	4.15 years
Weighted-average remaining lease term - finance leases	9.95 years	11.41 years	12.25 years
Weighted-average discount rate - operating leases	2.7 %	3.5 %	4.5 %
Weighted-average discount rate - finance leases	5.0 %	5.1 %	5.1 %

Rent expense charged to operations under operating lease agreements for 2022, 2021, and 2020 aggregated approximately \$4,478, \$3,143, and \$3,105, respectively.

Aggregate future minimum rental payments required under non-cancelable operating and finance leases at December 31, 2022 are as follows:

Year	
2023	\$ 5,352
2024	4,155
2025	3,141
2026	2,741
2027	2,298
Thereafter	6,880
Total minimum lease payments	<u>\$ 24,567</u>

NOTE 20 – DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

The Company is exposed to market fluctuations in interest rates as well as variability in foreign exchange rates. In May 2019, the Company entered into an interest rate swap (cash flow hedge) with JP Morgan Chase, N.A. (the "Swap Counterparty") and a cross-currency swap (net investment hedge) with JP Morgan Chase, N.A. (the "Bank Counterparty"). The Company's primary objective for holding derivative financial instruments is to manage interest rate risk and foreign currency risk.

On May 28, 2019, the Company entered into a pay-fixed (2.05%), receive-floating interest rate swap with a notional amount of \$108,569 and a maturity date of June 27, 2023. The receive-floating interest rate was based on the London Interbank Offered Rate ("LIBOR") in the original trade agreement. Due to the discontinuation of LIBOR, in the third quarter of 2022, the Company modified its existing interest rate swap to reference 1-month CME Term SOFR (CME Group Benchmark Administration Limited as administrator of the forward-looking term Secured Overnight Financing Rate) in the amended trade terms. This modification was made under the relief provided for in ASC 848, "Reference Rate Reform" and therefore the derivative continues to qualify for hedge accounting. The Company's risk management objective and strategy with respect to the interest rate swap is to protect the Company against adverse fluctuations in interest rates by reducing its exposure to variability in cash flows relating to interest payments on a portion of its outstanding debt. The Company is meeting its objective since changes in the cash flows of the interest rate swap are expected to exactly offset the changes in the cash flows attributable to fluctuations in the contractually specified interest rate on the interest payments associated with the 2022 Credit Agreement. The net interest income related to the interest rate swap contract was \$400 for the year ended December 31, 2022. The net interest expense related to the interest rate swap contract were \$2,144 and \$1,593 for the years ended December 31, 2021 and 2020, respectively. These amounts were recorded in the consolidated statements of operations under interest expense, net.

At the same time, the Company also entered into a pay-fixed (0.00%), receive-fixed (2.05%) cross-currency swap to manage foreign exchange risk related to the Company's net investment in Chemogas. The derivative has a notional amount of \$108,569, an effective date of May 28, 2019, and a maturity date of June 27, 2023. The interest income related to the cross-currency swap contract was \$2,250, \$2,257, and \$2,275 for the years ended December 31, 2022, 2021, and 2020, respectively, which were recorded in the consolidated statements of operations under interest expense, net.

The derivative instruments are with a single counterparty and are subject to a contractual agreement that provides for the net settlement of all contracts through a single payment in a single currency in the event of default on or termination of any one contract. As such, the derivative instruments are categorized as a master netting arrangement and presented as a net "Derivative asset" or "Derivative liability" on the condensed consolidated balance sheets.

As of December 31, 2022 and 2021, the fair value of the derivative instruments is presented as follows in the Company's consolidated balance sheets:

<i>Derivative assets (liabilities)</i>	2022	2021
Interest rate swap	\$ 1,406	\$ (2,158)
Cross-currency swap	4,587	(500)
Derivative assets (liabilities)	\$ 5,993	\$ (2,658)

On a quarterly basis, the Company assesses whether the hedging relationship related to the interest rate swap is highly effective at achieving offsetting changes in cash flow attributable to the risk being hedged based on the following factors: (1) the key features and terms as enumerated above for the interest rate swap and hedged transactions match during the period (2) it is probable that the Swap Counterparty will not default on its obligations under the swap, and (3) the Company performs a qualitative review each quarter to assess whether the relationship qualifies for hedge accounting.

In addition, on a quarterly basis the Company assesses whether the hedging relationship related to the cross-currency swap is highly effective based on the following evaluations: (1) the Company will always have a sufficient amount of non-functional currency (EUR) net investment balance to at least meet the cross-currency notional amount until the maturity date of the hedge (2) it is probable that the Swap Counterparty will not default on its obligations under the swap, and (3) the Company performs a qualitative review each quarter to assess whether the relationship qualifies for hedge accounting.

If any mismatches arise for either the interest rate swap or cross-currency swap, the Company will perform a regression analysis to determine if the hedged transaction is highly effective. If determined not to be highly effective, the Company will discontinue hedge accounting.

As of December 31, 2022, the Company assessed the hedging relationships for the interest rate swap and cross-currency swap and determined them to be highly effective. As such, the net change in fair values of the derivative instruments was recorded in accumulated other comprehensive income.

Gains and losses on our hedging instruments are recognized in accumulated other comprehensive income (loss) and categorized as follows for the year ended December 31, 2022, 2021, and 2020:

	Location within Statements of Comprehensive Income	Year ended December 31		
		2022	2021	2020
Cash flow hedge (interest rate swap), net of tax	Unrealized gain (loss) on cash flow hedge, net	\$ 2,696	\$ 2,053	\$ (2,285)
Net investment hedge (cross-currency swap), net of tax	Net foreign currency translation adjustment	3,851	4,766	(4,882)
		<u>\$ 6,547</u>	<u>\$ 6,819</u>	<u>\$ (7,167)</u>

On June 21, 2022, the Company completed the acquisition of Kappa (as defined in Note 2, Significant Acquisitions). In the process of acquiring Kappa, the Company entered into four short-term foreign currency exchange forward contracts with JP Morgan Chase, N.A to manage fluctuations in foreign currency exchange rates related to the acquisition. The Company did not designate these contracts as hedged transactions under the applicable sections of ASC Topic 815, "Derivatives and Hedging". For the year ended December 31, 2022, the net gains on these forward contracts of \$512 were recorded in other income or loss in the condensed consolidated statements of earnings. As of December 31, 2022, the Company did not maintain any open foreign currency exchange forward contracts as all four contracts expired before June 30, 2022.

The following table summarizes the key terms of the four forward exchange contracts:

Date entered into	Date expired on	Balchem to sell		Balchem to buy	
June 15, 2022	June 21, 2022	USD	294,555	NOK	2,924,553
June 15, 2022	June 17, 2022	USD	6,436	EUR	6,180
June 15, 2022	June 21, 2022	USD	16,640	EUR	15,972
June 15, 2022	June 21, 2022	EUR	15,972	NOK	165,210

NOTE 21 - QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

(In thousands, except per share data)

	2022				2021			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Net sales	\$ 228,867	\$ 236,693	\$ 244,267	\$ 232,531	\$ 185,656	\$ 202,365	\$ 197,869	\$ 213,133
Gross margin	71,506	71,876	68,430	68,639	58,727	59,447	60,934	64,066
Earnings before income taxes	37,630	39,258	31,085	25,776	29,983	30,019	32,085	33,146
Net earnings	28,930	29,782	25,249	21,406	23,411	22,731	25,013	24,949
Basic net earnings per common share	\$.90	\$.93	\$.79	\$.67	\$.73	\$.71	\$.78	\$.78
Diluted net earnings per common share	\$.89	\$.92	\$.78	\$.66	\$.72	\$.70	\$.77	\$.76

BALCHEM CORPORATION
Valuation and Qualifying Accounts
Years Ended December 31, 2022, 2021 and 2020
(In thousands)

	Allowance for Doubtful Accounts	Inventory Reserve
Balance - December 31, 2019	\$ 2,080	\$ 4,281
Additions charged to costs and expenses	140	5,964
Adjustments/deductions ^(a)	(128)	(7,463)
Balance - December 31, 2020	2,092	2,782
Additions charged to costs and expenses	180	7,312
Adjustments/deductions ^(a)	(1,344)	(8,669)
Balance - December 31, 2021	928	1,425
Additions charged to costs and expenses	401	6,786
Adjustments/deductions ^(a)	(103)	(5,571)
Balance - December 31, 2022	\$ 1,226	\$ 2,640

^(a) Represents write-offs and other adjustments

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Disclosure Controls and Procedures

We maintain “disclosure controls and procedures,” as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934 (the “Exchange Act”), that are designed to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating our disclosure controls and procedures, management recognized that disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the disclosure controls and procedures are met. Additionally, in designing disclosure controls and procedures, our management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible disclosure controls and procedures. The design of any disclosure controls and procedures also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the design and operation of our disclosure controls and procedures as of December 31, 2022. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of such date, our disclosure controls and procedures were effective.

Management’s Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting is a process designed under the supervision of our principal executive and principal financial officers to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our financial statements for external reporting purposes in accordance with U.S. generally accepted accounting principles.

Our internal control over financial reporting includes policies and procedures that pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect transactions and dispositions of assets; provide reasonable assurances that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. generally accepted accounting principles, and that receipts and expenditures are being made only in accordance with authorizations of our management and our directors; and provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

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

We completed the Bergstrom and Kappa acquisitions in 2022 (See Note 2, Significant Acquisitions). Management’s assessment of and conclusion on the effectiveness of our internal control over financial reporting excludes the internal controls over financial reporting of Bergstrom and Kappa. The acquisitions contributed approximately 2.4% of our net sales for the year ended December 31, 2022, and accounted for approximately 24.5% of our assets as of December 31, 2022. Registrants are permitted to exclude acquisitions from their assessment of internal controls over financial reporting during the first year if, among other circumstances and factors, there is not adequate time between the consummation date of the acquisition and the assessment date for assessing internal controls. Management is in the process of implementing internal control procedures for these subsidiaries.

As of December 31, 2022, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in the 2013 Internal Control-Integrated Framework (New Framework) to conduct an assessment of the effectiveness of our internal control over financial reporting. Based on this assessment, management has determined that our internal control over financial reporting was effective as of December 31, 2022.

Attestation Report of Registered Public Accounting Firm

The independent registered public accounting firm of RSM US LLP has issued an attestation report on our internal control over financial reporting, which is included herein.

Changes in Internal Control Over Financial Reporting

There has been no significant change in our internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers of the Registrant, and Corporate Governance.

The information regarding our executive officers is included in Part I of this report under the heading “Information about our Executive Officers.”

The other information required by this item is incorporated by reference to the information contained under the headings “Proposal 1. Election of Directors,” “Delinquent Section 16(a) Reports,” and “Corporate Governance” in our Proxy Statement for the 2023 Annual Meeting of Shareholders which will be filed no later than 120 days after December 31, 2022 (the “2023 Proxy Statement”).

Item 11. Executive Compensation.

The information required by this item is incorporated by reference to the information contained under the headings “Executive Compensation,” “Compensation Committee Report,” and “Compensation Committee Interlocks and Insider Participation” in our 2023 Proxy Statement.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information required by this item is incorporated by reference to the information contained under the headings “Security Ownership of Certain Beneficial Owners and of Management” and “Equity Compensation Plan Information” in our 2023 Proxy Statement.

Item 13. Certain Relationships and Related Transactions and Director Independence.

The information required by this item is incorporated by reference to the information contained under the headings “Related Party Transactions” and “Director Independence” in our 2023 Proxy Statement.

Item 14. Principal Accountant Fees and Services.

The information required by this item is incorporated by reference to the information contained under the heading “Information Relating to Proposal 2. Ratification of Appointment of Independent Registered Public Accounting Firm” of our 2023 Proxy Statement.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

The following documents are filed as part of this Form 10-K:

1.	Financial Statements	Page Number
	<u>Report of Independent Registered Public Accounting Firm</u>	<u>28</u>
	<u>Consolidated Balance Sheets as of December 31, 2022 and 2021</u>	<u>31</u>
	<u>Consolidated Statements of Earnings for the years ended December 31, 2022, 2021 and 2020</u>	<u>32</u>
	<u>Consolidated Statements of Comprehensive Income for the years ended December 31, 2022, 2021 and 2020</u>	<u>33</u>
	<u>Consolidated Statements of Stockholders' Equity for the years ended December 31, 2022, 2021 and 2020</u>	<u>34</u>
	<u>Consolidated Statements of Cash Flows for the years ended December 31, 2022, 2021 and 2020</u>	<u>35</u>
	<u>Notes to Consolidated Financial Statements</u>	<u>36</u>
2.	Financial Statement Schedules	
	<u>Schedule II – Valuation and Qualifying Accounts for the years ended December 31, 2022, 2021 and 2020</u>	<u>71</u>
3.	Exhibits	
2.1	<u>Share Purchase Agreement between Kechu MidCo AS as the Seller and Balchem Corporation and Balchem B.V. as the Buyers regarding the sale and purchase of the shares in Kechu BidCo AS (incorporated by reference to Exhibit 2.1 of the Company's Current Report on Form 8-K filed on June 15, 2022).</u>	
3.1	<u>Balchem Corporation Composite Articles of Incorporation (incorporated by reference to Exhibit 3.1 to the Company's Annual Report on Form 10-K filed on March 16, 2006).</u>	
3.2	<u>Balchem Corporation Articles of Amendment (incorporated by reference to Exhibit A to the Company's definitive proxy statement on Schedule 14A filed on April 25, 2008).</u>	
3.3	<u>Balchem Corporation Articles of Amendment (incorporated by reference to Exhibit A to the Company's definitive proxy statement on Schedule 14A filed on April 28, 2011).</u>	
3.4	<u>By-laws of the Company, as amended and restated as of December 5, 2022 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed on December 7, 2022)</u>	
4.1	<u>Description of Securities (filed herewith).</u>	
10.1	<u>Balchem Corporation 401(k) Basic Plan Document #01, as amended by the Balchem Corporation 401(K) Plan Amendment of January 1, 2023 (filed herewith).*</u>	

10.2	<u>Balchem Corporation Second Amended and Restated 1999 Stock Plan, (incorporated by reference to the Company's Registration Statement on Form S-8, File No. 333-155655, filed on November 25, 2008, and to the Company's Proxy Statement, filed on April 25, 2008).*</u>
10.3	<u>Amended and Restated Credit Agreement dated July 27, 2022 (the "Amended Credit Agreement") among Balchem Corporation, the Domestic Guarantors (as defined in the Amended Credit Agreement), JPMorgan Chase Bank, N.A., as administrative agent, and the Lenders (as defined in the Amended Credit Agreement) (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on August 1, 2022).</u>
10.4	<u>Security and Pledge Agreement dated July 27, 2022 among Balchem Corporation, the Obligors, and JPMorgan Chase Bank, N.A., (incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K filed on August 1, 2022).</u>
10.5	<u>Balchem Corporation 2017 Omnibus Incentive Plan (incorporated by reference to the Company's Registration Statement on Form S-8, File No. 333-219722, filed on August 4, 2017 and Appendix A to the Company's Proxy Statement on Schedule 14A, filed on April 27, 2017).*</u>
10.6	<u>Forms of Restricted Stock Grant Agreement, Performance Share Unit Grant Agreement and Stock Option Agreement under the Balchem Corporation 2017 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.10 to the Company's Annual Report on Form 10-K filed on February 28, 2019).*</u>
10.7	<u>Balchem Corporation Officer Retiree Program (filed herewith).*</u>
10.8	<u>Balchem Corporation Director Retiree Program (filed herewith).*</u>
10.9	<u>Employment Agreement, dated as of April 22, 2015, between the Company and Theodore L. Harris (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed on August 5, 2015).*</u>
10.10	<u>Offer Letter dated January 10, 2019 between the Company and C. Martin Bengtsson (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on February 4, 2019).*</u>
10.11	<u>Theodore L. Harris Stock Option Grant Agreement, dated September 15, 2022 (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q dated November 4, 2022).*</u>
21.1	<u>Subsidiaries of Registrant (filed herewith).</u>
23.1	<u>Consent of RSM US LLP, Independent Registered Public Accounting Firm.</u>
31.1	<u>Certification of Chief Executive Officer pursuant to Rule 13a-14(a).</u>
31.2	<u>Certification of Chief Financial Officer pursuant to Rule 13a-14(a).</u>
32.1	<u>Certification of Chief Executive Officer pursuant to Rule 13a-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code.</u>
32.2	<u>Certification of Chief Financial Officer pursuant to Rule 13a-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code.</u>
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document

101.CAL XBRL Taxonomy Extension Calculation Linkbase Document

101.DEF XBRL Taxonomy Extension Definition Linkbase Document

101.LAB XBRL Taxonomy Extension Label Linkbase Document

101.PRE XBRL Taxonomy Extension Presentation Linkbase Document

104 Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* Each of the Exhibits noted by an asterisk is a management compensatory plan or arrangement.

SIGNATURES

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

Date: February 24, 2023

BALCHEM CORPORATION

By: /s/ Theodore L. Harris

Theodore L. Harris, Chairman, President
and Chief Executive Officer

SIGNATURES

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

/s/ Theodore L. Harris

Theodore L. Harris, Chairman, President and
Chief Executive Officer

Date: February 24, 2023

/s/ C. Martin Bengtsson

C. Martin Bengtsson, Executive Vice President and
Chief Financial Officer

Date: February 24, 2023

/s/ William A. Backus

William A. Backus, Vice President and
Chief Accounting Officer

Date: February 24, 2023

/s/ David B. Fischer

David B. Fischer, Director

Date: February 24, 2023

/s/ Kathleen B. Fish

Kathleen B. Fish, Director

Date: February 24, 2023

/s/ Daniel E. Knutson

Daniel E. Knutson, Director

Date: February 24, 2023

/s/ Joyce J. Lee

Joyce J. Lee, Director

Date: February 24, 2023

/s/ Perry W. Premdas

Perry W. Premdas, Director

Date: February 24, 2023

/s/ John Y. Televantos

Dr. John Y. Televantos, Director

Date: February 24, 2023

/s/ Matthew D. Wineinger

Matthew D. Wineinger, Director

Date: February 24, 2023

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COMPANY INFORMATION

HEADQUARTERS

Balchem Corporation

5 Paragon Drive
Montvale, NJ 07645
845.326.5600

STOCK LISTING

NASDAQ Global Select Market

Symbol: BCPC

INVESTOR RELATIONS

Jacqueline Yarmolowicz

845.326.5600



TRANSFER AGENT

Broadridge Corporate Issuer Solutions

1155 Long Island Ave.
Edgewood, NY 11717-8309
Attn: IWS

INDEPENDENT ACCOUNTANTS

RSM US LLP

151 West 42nd St.
19th Floor
New York, NY 10036

WEBSITE

www.balchem.com



BOARD OF DIRECTORS

Theodore Harris

David Fischer

Kathleen Fish

Daniel Knutson

Joyce Lee

Perry Premdas

Dr. John Televantos

Matthew Wineinger



CORPORATE OFFICERS

Theodore Harris

Chairman, President and
Chief Executive Officer

C. Martin Bengtsson

Executive Vice President
and Chief Financial
Officer

Hatsuki Miyata

Executive Vice President,
General Counsel and
Secretary



balchem[®]
Solve Today. Shape Tomorrow.

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