Risk Factors Comparison 2023-11-21 to 2022-11-15 Form: 10-K

Legend: New Text ~~Removed Text~~ Unchanged Text Moved Text Section

The following are the most material factors known to NTIC that could materially adversely affect its business, operating results, or financial condition. Risk Factors Summary This summary is not complete and should be read in conjunction with the risk factors set forth below. Risks Related to NTIC' s Business and Industry ● Any weakness in the global economy, and in particular in the United States, Europe, India and China, and in the automotive industry, **has negatively impacted and in the future** may negatively impact NTIC' s business, operating results, and financial condition. ● ~~The~~ COVID- 19 ~~pandemic~~ has adversely impacted and **may** ~~will likely~~ continue to adversely impact NTIC' s business, operating results and financial condition. ● NTIC' s business **in the past has been and in the future** may be negatively impacted by inflation. ● Supply chain disruptions **in the past have interrupted and in the future** could interrupt product manufacturing, increase product costs and result in lost sales, which **have had and in the future** may have a material adverse effect on NTIC' s business, operating results and financial condition. ● Disruptions to the distribution channels for NTIC' s products **in the past have negatively impacted and in the future** may negatively impact NTIC' s business, operating results, and financial condition. ● NTIC' s dependence on key suppliers puts NTIC at risk of interruptions in the availability of its products, which could reduce its net sales and adversely affect its operating results and harm its reputation. ● Increases in prices for raw materials and components used in NTIC' s products **in the past have adversely affected and in the future** could adversely affect NTIC' s operating results. ● NTIC relies on others for its production and any interruptions of these arrangements could disrupt NTIC' s ability to fill its customers' orders. ● Changes to trade regulation, quotas, duties, or tariffs, caused by the changing U. S. and geopolitical environments or otherwise, **have negatively impacted in the past and in the future** may negatively impact NTIC' s business, operating results, and financial condition. ● Global credit and financial markets in the past have experienced disruptions, including diminished liquidity and credit availability and rapid fluctuations in market valuations, which, if they happen again, could negatively impact NTIC' s business, operating results, and financial condition. ● NTIC has limited staffing, faces challenges caused by its aging workforce and given its limited resources, it may not effectively manage its growth. ● The evolution of the automotive industry towards electric vehicles could adversely affect ~~our~~ **NTIC' s** business. Risks Related to NTIC' s Joint Ventures ● NTIC' s liquidity and financial position rely on the receipt of fees for services provided to its joint ventures and dividend distributions from its joint ventures. No assurance can be provided that NTIC will continue to receive such fees and dividend distributions in amounts NTIC historically has received or anticipates receiving. ● Since a significant portion of NTIC' s earnings results from its equity income from joint ventures which varies quarter to quarter, NTIC' s earnings are subject to quarterly fluctuations. Risks Related to NTIC' s International Operations and the Foreign Markets in which NTIC Operates ● NTIC' s international business, which is conducted primarily through its subsidiaries and joint ventures, requires management attention and financial resources and exposes NTIC to difficulties and risks presented by international economic, political, legal, accounting, and business factors. ● If sales of NTIC' s products and services by its joint venture in Germany were to decline significantly or if NTIC' s relationships with this joint venture were to deteriorate significantly, NTIC' s operating results likely would be adversely affected. ● NTIC' s acquisition of the remaining 50 % ownership interest of HNTI **Limited** and any future similar acquisitions involve risk. ● The ongoing ~~conflict~~ **war** between Russia and Ukraine may adversely affect ~~our~~ **NTIC' s** business and results of operations. ● **The ongoing war between Israel and Hamas may adversely affect NTIC' s business and results of operations. ● The operations of** NTIC China ~~' s operations~~ may be adversely affected by China' s evolving economic, political, and social conditions **, as well as increasing tensions between the United States** and **China. ●** ~~intellectual~~ **Intellectual** property rights are difficult to enforce in China, which could harm NTIC' s business, results of operations, or financial condition. ● Uncertainties with respect to the Chinese legal system may adversely affect the operations of NTIC China. ● Failure to comply with the U. S. Foreign Corrupt Practices Act could subject NTIC to penalties and legal expenses. ● Fluctuations in foreign currency exchange rates could result in declines in NTIC' s earnings and changes in NTIC' s foreign currency translation adjustments. ● Economic uncertainty in developing markets could adversely affect NTIC' s revenue and earnings. Risks Related to NTIC' s Products ● NTIC faces intense competition in almost all of its product lines, including from competitors that have substantially greater resources than NTIC does. No assurance can be provided that NTIC will be able to compete effectively, which would harm its business and operating results. ● NTIC' s ZERUST ® rust and corrosion inhibiting products and services generate a significant portion of NTIC' s net sales and the net sales of NTIC' s joint ventures. Accordingly, if sales of these products and services were to decline, NTIC' s operating results would be adversely affected. ● If NTIC is unable to continue to enhance its existing products and develop and market new products that respond to customer needs and achieve market acceptance, NTIC may experience a decrease in demand for its products, and its business could suffer. ● No assurance can be provided that NTIC' s investments in additional research and development and marketing efforts and resources into the application of its corrosion prevention solutions into the oil and gas industry and the continued launch of its Natur- Tec ® resin compounds and finished products will be successful. ● NTIC' s strategy of expanding its corrosion prevention solutions into the oil and gas industry and continuing the expansion of its Natur- Tec ® bioplastics resin compounds and finished products is risky and may not prove to be successful, which could harm NTIC' s operating results and financial condition. ● NTIC' s dependence on manufacturing and logistical services provided by contractors could give rise to product defect or warranty liability. ● The commercial success of NTIC' s Natur- Tec ® resin compounds and finished products depends on the widespread market acceptance of products manufactured with bio- based and biodegradable resins. ● NTIC relies on its joint ventures, distributors, manufacturer' s sales representatives, and other agents to market and sell its products. ● NTIC may be subject to product liability claims or other claims arising out of the activities of its joint ventures, which could adversely affect NTIC and its business, and the sale of ZERUST ® rust and corrosion inhibiting products into the oil and gas industry is risky in light of the hazards typically associated with such operations and the significant amount of potential liability involved. ● The sale of ZERUST ® rust and corrosion inhibiting products into the oil and gas industry is somewhat seasonal and dependent upon oil prices. ● The expansion of NTIC’ s corrosion prevention solutions into the oil and gas industry and the continued launch of NTIC’ s Natur- Tec ® resin compounds and finished products may require additional capital in the future, which may not be available or may be available only on unfavorable terms. Risks Related to Governmental Regulation, Laws, and Compliance ● NTIC’ s business, properties, and products are subject to governmental regulation and taxes, compliance with which may require NTIC to incur expenses or modify its products or operations, and which may expose NTIC to penalties for non- compliance. Governmental regulation also may adversely affect the demand for some of NTIC’ s products and its operating results. ● Fluctuations in NTIC’ s effective tax rate could have a significant impact on NTIC’ s financial position, results of operations, or cash flows. ● Certain of NTIC’ s operations are subject to regulation by the U. S. Food and Drug Administration. ● NTIC’ s reliance upon patents, trademark laws, trade secrets, and contractual provisions to protect its proprietary rights may not be sufficient to protect its intellectual property. ● NTIC ~~’ s compliance with~~ **has identified a material weakness in its internal controls, and cannot provide assurances that this weakness will be effectively remediated or that additional material weaknesses will not occur in the future. ● Any changes in U. S.** generally accepted accounting principles ~~any changes in such principles~~ might adversely affect NTIC’ s operating results ~~and financial condition~~ . Risks Related to NTIC’ s Common Stock ● The trading volume of NTIC’ s common stock is typically very low, leaving NTIC’ s common stock open to risk of high volatility and the price and trading volume has been, and may continue to be, volatile. ● A large percentage of NTIC’ s outstanding common stock is held by insiders, and, as a result, the trading market for NTIC’ s common stock is not as liquid as the stock of other public companies. ~~The~~ **From time to time, the** U. S. and world economies ~~may~~ suffer from uncertainty, volatility, disruption, and other adverse conditions, ~~such~~ **which** ~~as~~ **has** ~~the impact of the COVID- 19 pandemic and persistent inflation resulting therefrom, and those conditions have~~ adversely impacted and **in the future** may ~~continue to~~ adversely impact the business community and the financial markets. Adverse economic and financial market conditions **have negatively affected and in the future** may negatively affect NTIC’ s customers and its markets, thereby negatively impacting ~~its~~ **NTIC’ s** business and operating results. For example, weak market conditions could extend the length of NTIC’ s sales cycle and cause potential customers to delay, defer, or decline to make purchases of NTIC’ s products and services due to uncertainties surrounding the future performance of their businesses, limitations on their capital expenditures due to internal budget constraints, the inability to obtain financing in the capital markets, and the adverse effects of the economy on their business and financial condition. As a result, if economic and financial market conditions weaken or deteriorate, then NTIC’ s business, financial condition, and operating results, including its ability to grow and expand its business and operations, could be materially and adversely affected. NTIC’ s operating results are especially dependent upon the economic health of the economies in the United States, Europe, India and China. Since a significant portion of NTIC’ s ZERUST ® rust and corrosion inhibiting products and services are sold to customers in the automotive industry, adverse economic conditions affecting the automotive industry **or other events that may adversely affect the automotive industry** , ~~in particular~~ **such as the recent UAW strike** , may result in an adverse effect on NTIC’ s net sales and its other operating results. Accordingly, any weakness in the global economy, particularly the United States, Europe, India and China, and in the automotive industry, including decreased production resulting from the ongoing microchip shortage, have negatively impacted and may continue to negatively impact NTIC’ s business, operating results, and financial condition. **As a result of** COVID- 19 ~~has~~ **and** ~~resulted~~ -- **related** ~~in the curtailment of~~ **government mandated restrictions on NTIC’ s** business ~~activities from time to time~~ , ~~including more recently in China, and has~~ - **as well as** ~~caused weakened economic conditions, both in~~ the ~~United States and abroad. Business~~ **businesses** ~~closures and slowdowns adversely impacted and may continue to adversely impact NTIC directly and caused some~~ of ~~NTIC’ s~~ **its joint ventures,** customers and suppliers ~~to operate at a fraction of their capacities or wholly lock down~~ , ~~which disrupted and may continue to disrupt~~ **disruption to** NTIC’ s **business and the manufacture and** ~~sales~~ - **sale of** ~~and production, especially in China. These and other factors, such as other COVID- 19 variants that may arise, contributed to NTIC experiencing decreased global demand for~~ its products and services ~~during certain markets during fiscal 2022 and more widespread during fiscal 2021 and increased supply chain and shipping costs and disruptions, which will likely continue~~ **continued** to **occur** ~~some degree~~ during fiscal 2023 **, including in particular in China. While demand in China improved in fiscal 2023 as a result of government restrictions being lifted, NTIC has continued to experience softened demand** . This decreased demand may have a material adverse effect on NTIC’ s business, operating results and financial condition in fiscal ~~2023~~ **2024** . Due to the international reach of COVID- 19, NTIC anticipates that its international subsidiaries and joint ventures will continue to be adversely impacted by the causes listed above, as well as other local issues that may arise, which will likely continue to have a material adverse effect on NTIC’ s international subsidiaries and joint venture operations and equity in income from joint ventures. **A resurgence** ~~It is currently not possible to predict the precise potential impact, as well as the extent~~ of ~~any impact, of the~~ COVID- 19 ~~pandemic on NTIC’ s business,~~ and **any related government mandated restrictions** ~~on the global economy as a whole. It is also currently not possible to predict how long the pandemic will last or the time that it will take for economic activity to return to prior levels or supply chain disruptions to cease. A prolonged situation~~ could have a significant adverse effect on economies and financial markets globally, ~~potentially deepening the current worldwide economic downturn,~~ which could have a significant adverse effect on NTIC’ s business, operating results and financial condition. Any of these events could materially adversely affect NTIC’ s business, operating results and financial condition ~~. In addition, the COVID- 19 pandemic has already adversely affected~~ and could ~~in the future~~ adversely affect NTIC’ s stock price ~~. NTIC’ s business may continue to be negatively impacted by inflation~~ . Increases in inflation may have a negative impact on NTIC’ s business. ~~Current and future inflationary effects may be driven by, among other things, the COVID- 19 pandemic, supply chain disruptions, governmental~~

~~stimulus or fiscal policies and the Russia / Ukraine war.~~ While the persistent inflation experienced in fiscal ~~2021~~ **2022** ~~and~~ **began stabilizing in** fiscal ~~2022~~ **2023** ~~has somewhat stabilized recently~~ , **initial** increases in inflation ~~have~~ impacted the cost of raw materials, the overall demand for NTIC' s products, labor, and the margins NTIC and its joint ventures are able to realize on the sale of products, all of which have had and could continue to have a negative impact on NTIC' s business, financial position, results of operations and cash flows. Sustained levels of high inflation caused the U. S. Federal Reserve and other central banks to increase interest rates, which could increase the cost of capital available to NTIC and depress economic growth, ~~which~~ could also negatively impact our business. ~~During fiscal 2021 and fiscal 2022, supply~~ **Supply** chain disruptions **in the past have interrupted and in the future could interrupt product manufacturing** , **increase product costs and** ~~resulting~~ --- **result** ~~from factors such as~~ **in lost sales, which may have a material adverse effect on NTIC' s business, operating results and financial condition. Supply chain disruptions, which were initially brought about by** the **impact of** COVID- 19 ~~pandemic~~ , **persisted during fiscal 2023** ~~labor supply shortages and shipping container shortages, impacted, and may continue to impact, NTIC and its third- party manufacturers~~ . These disruptions ~~have~~ resulted in longer lead times **for raw materials** and increased product costs and shipping expenses. While NTIC **took** ~~has taken~~ steps to minimize the impact of these increased costs by working closely with its suppliers and customers **and, in some cases, identifying new suppliers of certain raw materials, and while these issues improved in late fiscal 2023 and are expected to continue improving in fiscal 2024** , there can be no assurances that unforeseen events impacting the supply chain will not have a material adverse effect on NTIC in the future. Additionally, the impacts supply chain disruptions have on NTIC' s third- party manufacturers are not within NTIC' s control. ~~While we have seen recent improvements, it is not currently possible to predict how long it will take for these supply chain disruptions to cease.~~ Prolonged supply chain disruptions impacting NTIC and its third- party manufacturers could interrupt product manufacturing, increase product costs and result in lost sales, which may have a material adverse effect on NTIC' s business, operating results and financial condition. During fiscal ~~2021~~ **2022** and fiscal ~~2022~~ **2023** , **NTIC experienced** supply chain disruptions ~~began to emerge because~~ **, initially as a result** of the COVID- 19 pandemic, shipping container shortages, and ~~the~~ changes in global demand. **While** ~~These~~ **these** conditions **had improved by the end of** ~~and ocean freight capacity issues continued to persist worldwide during~~ fiscal ~~2022~~ **2023** ~~as there was much greater demand for shipping~~ and **are expected to** ~~reduced capacity and equipment, which resulted in significantly longer shipping times and significant price increases per shipping container~~ -- **continue to stabilize in fiscal 2024** ~~. While many of these effects have improved~~ , it is possible that NTIC may **encounter similar conditions again in** ~~continue to experience adverse effects during fiscal 2023. Shipping companies have taken measures such as charging priority booking fees to allocate space as they~~ - **the future** ~~have fewer ships and workers operating~~ . **Similar** ~~While we have seen recent stabilizations of container costs and, in some markets, a recent decrease in costs, there is no indication that these shipping delays and increased shipping container rates will return to historical levels in the near- term, and these~~ delays and elevated costs **in the future** could have a material adverse effect on NTIC' s consolidated results of operations. Furthermore, transportation delays, ~~increases~~ **increased** ~~on~~ shipping containers **rates** ~~, more extensive travel restrictions~~ , closures or disruptions of businesses and facilities or social, economic, political or labor instability in the affected areas may impact the operations of NTIC' s suppliers, which could in turn adversely affect NTIC, and its revenues and operating costs. Any of these disruptions may negatively impact NTIC' s business, operating results, and financial condition. NTIC relies on suppliers for certain raw materials and components used in its products. For reasons of quality assurance, cost effectiveness, or availability, NTIC procures certain raw materials and components from sole or limited source suppliers. Among the limited source suppliers NTIC does business with are the manufacturers of plastic resins used in Natur- Tec ® products. NTIC generally acquires these and other raw materials and components through purchase orders placed in the ordinary course of business, and as a result, NTIC does not have a significant inventory of these materials and components and does not have any guaranteed or contractual supply arrangements with many of these suppliers for these materials and components. NTIC' s dependence on third- party suppliers involves several risks, including limited control over pricing, availability, quality, and delivery schedules, as well as manufacturing yields and costs. Suppliers of such raw materials and components may decide, or be required, for reasons beyond NTIC' s control, to cease supplying such raw materials and components to NTIC or to raise their prices. Shortages of raw materials, quality control problems, production capacity constraints, or delays by suppliers could negatively affect NTIC' s ability to meet its production obligations and result in increased prices for affected parts ~~. For example~~ , ~~the~~ **and NTIC may be forced to find new suppliers for certain raw materials. The** rapid growth in demand for bioplastics products globally has increased the demand and the price for plastic resins, and limited suppliers of such plastic resins may experience shortages caused by demand outpacing their production capabilities, which could result in NTIC' s inability to produce its Natur- Tec ® products promptly or in the volumes demanded. **Any such** ~~Additionally, the impact of the COVID- 19 pandemic has caused supply shortages, which also could result in NTIC' s inability to produce its Natur- Tec ® products. These and other~~ shortages, constraints, or delays may result in delays in shipments of products or components, which could adversely affect NTIC' s net sales and other operating results and its reputation. From time to time, materials and components used in NTIC' s products are subject to allocation because of shortages of these materials and components. NTIC uses certain raw materials and components in its products, including in particular plastic resins, which are subject to price increases. In light of increased global demand for bioplastics, production slowdowns due to manufacturing issues, labor shortages and power restrictions in China, freight container shortages, the war in Ukraine, and the lingering effects of ~~the~~ COVID- 19 ~~pandemic~~ , the prices of certain plastic resins increased in fiscal ~~2021~~ **2022** and **, through the majority of** fiscal ~~2022~~ **2023 ,** ~~and have~~ remained ~~higher than pre- pandemic~~ **above historical levels. Although resin** prices **began dropping in late fiscal 2023** , ~~which~~ **future elevated prices** could adversely affect gross margins on NTIC' s Natur- Tec ® products. ~~If these~~ **Similarly, if** shortages ~~persist~~ **of resins arise again in the future** , the cost and / or production of NTIC' s products could be adversely affected. Additionally, the war between Russia and Ukraine and the resulting sanctions by U. S. and European governments have resulted in and may continue to result in commodity price fluctuations, which have decreased our margins and the margins of our joint ventures and resulted in decreased joint venture profitability, which will likely continue during fiscal ~~2023~~ **2024 . The war between Israel and Hamas may have similar impacts during fiscal 2024** . Finally, changes to international trade agreements could result in additional tariffs, duties, or other charges on raw materials or components we import into the U. S. NTIC relies on others for its production and any interruptions of these arrangements could disrupt NTIC' s ability to fill its customers' orders. NTIC utilizes contract manufacturers for a significant portion of its production requirements. The majority of NTIC' s manufacturing is conducted in the United States by contract manufacturers that also perform services for numerous other companies. NTIC does not have a guaranteed level of production capacity with any of its contract manufacturers. Qualifying new contract manufacturers is time consuming and might result in unforeseen manufacturing and operations problems. The loss of NTIC' s relationships with its contract manufacturers or their inability to conduct their manufacturing and assembly services for NTIC as anticipated in terms of capacity, cost, quality, and timeliness could adversely affect NTIC' s ability to fill customer orders in accordance with required delivery, quality, and performance requirements, thus adversely affecting NTIC' s net sales and other operating results. There is significant uncertainty about the future relationship between the United States and other countries with respect to trade policies, taxes, government regulations, and tariffs. **Within recent years,** ~~The Trump administration had signaled support~~ for **example** ~~implementing and~~ , ~~in some instances, proposed or took action with respect to major changes to certain~~ trade **policy** ~~policies in an effort to encourage U. S. production. Such~~ changes included the imposition of additional tariffs on imported products in an effort to address trade imbalances, specifically with China, the withdrawal of the U. S. from the Trans- Pacific Partnership, ~~and~~ the renegotiation of the North American Free Trade Agreement **, and sanctions on Russia** . In response to ~~such~~ **some of these** actions, certain countries imposed retaliatory actions against the U. S. NTIC and its subsidiaries and joint ventures engage in sales outside of the United States and is, therefore, negatively impacted by such actions. Any changes or potential changes in trade policies in the United States ~~, including changes made by the Biden administration,~~ and the potential corresponding actions by other countries in which NTIC does business could adversely and materially affect NTIC' s business, results of operations, and financial condition. Any tightening of the credit and financial markets could negatively impact the ability of companies to borrow money from their existing lenders, obtain credit from other sources, or raise financing to fund their operations. This could negatively impact the ability of NTIC' s customers and the customers of NTIC' s joint ventures to purchase NTIC' s products, suppliers' ability to provide NTIC and its joint ventures with materials and components, and the ability of NTIC and its joint ventures, distributors, and sales representatives to finance operations, if needed, on commercially reasonable terms, or at all. Any or all of these events could negatively impact NTIC' s business, operating results, and financial condition. Although NTIC maintains allowances for doubtful accounts for estimated losses resulting from the inability of its customers, distributors, and joint ventures to make required payments, and such losses historically have been within NTIC' s expectations and the provisions established, NTIC cannot guarantee that it will continue to experience the same loss rates that it has in the past, especially if there are weaknesses in the worldwide economy. A significant change in the liquidity or financial condition of NTIC' s customers, distributors, or joint ventures could cause unfavorable trends in NTIC' s receivable collections and additional allowances may be required, which could adversely affect NTIC' s operating results. In addition, weaknesses in the worldwide economy, including the imposition of higher tariffs ~~and~~ **, the** withdrawal from the Trans- Pacific Partnership **and sanctions on Russia** , may adversely impact the ability of suppliers to provide NTIC with materials and components, which could adversely affect NTIC' s business and operating results. NTIC is unable to predict the prospects for a global economic recovery, but the longer the duration of such adverse and uncertain economic conditions, the greater the risks NTIC faces in operating its business. NTIC has limited staffing and will continue to be dependent upon key employees. NTIC' s success is dependent upon the efforts of a small management team and group of employees. NTIC' s future success will depend in large part on its ability to retain its key employees and identify, attract, and retain other highly qualified managerial, technical, research and development, sales and marketing, and customer service personnel when needed. Competition for these individuals may be intense, especially in the markets in which NTIC operates. NTIC may not succeed in identifying, attracting, and retaining these personnel. Inadequate performance by any of NTIC' s limited staff could have a negative impact on the performance of the company. In addition, none of NTIC' s employees have any contractual obligation to maintain his or her employment with NTIC. The loss or interruption of services of any of NTIC' s key personnel, including in particular its technical personnel, the inability to identify, attract, or retain qualified personnel in the future, delays in hiring qualified personnel, or any employee slowdowns, strikes, or similar actions could make it difficult for NTIC to manage its business and meet key objectives, which could harm NTIC' s business, operating results, and financial condition. Although we have not experienced any material labor shortage to date, we have ~~recently~~ observed an overall tightening and increasingly competitive labor market **in the past two years** . A sustained labor shortage or increased turnover rates within our employee base could lead to increased costs, such as increased overtime to meet demand and increased wage rates to attract and retain employees ~~,~~ and could negatively affect our ability to efficiently operate our manufacturing and distribution facilities and overall business. If we are unable to hire and retain employees capable of performing at a high- level, or if mitigation measures we may take to respond to a decrease in labor availability, such as overtime and third- party outsourcing, have unintended negative effects, our business could be adversely affected. An overall labor shortage, lack of skilled labor, increased turnover or labor inflation could have a material adverse impact on NTIC' s operations, results of operations, liquidity or cash flows. NTIC faces challenges caused by its aging workforce, and NTIC may not be able to recruit, train and retain adequate replacements for its qualified and skilled employees. Many of our employees are approaching retirement age. As these experienced employees retire, we may have difficulty recruiting new employees with comparable qualifications and experience, and we may be unable to transfer our employees' institutional knowledge successfully to new qualified employees. Any such failures would be exacerbated at times of peak demand. Our failure to recruit and train new employees and to ensure they obtain ~~the~~ adequate qualifications and experience could result in reduced revenues, loss of customer goodwill and a material negative impact on our results of operations. Given NTIC' s limited resources, it may not effectively manage its growth. NTIC' s strategy to grow its business, including in particular its ZERUST ® rust and corrosion inhibiting products for the oil and gas industry and its Natur- Tec ® bio- plastic resin compounds and finished products, requires significant management time and operational and financial resources. There is no assurance that NTIC has the necessary operational and financial resources to manage its growth. This is especially true as it expands facilities and manufactures its products on a larger commercial scale. In addition, rapid growth in NTIC' s headcount and operations may place a significant strain on its management, administrative, operational, and financial infrastructure. Failure to adequately manage its growth could have a material and adverse effect on NTIC' s business, operating results, and financial condition. For example, NTIC' s soil side bottom solutions for tanks require implementation teams comprised of both internal NTIC personnel and outside consulting firms. NTIC' s failure to expand these implementation teams to service additional customers may limit NTIC' s ability to grow this business. In addition, NTIC may not be successful in its strategy to grow its business. The global automotive industry is experiencing a period of significant technological change, including the development and use of electric vehicles, which do not contain as many components that require ~~our~~ **NTIC' s** ZERUST **®** products and solutions. During fiscal ~~2022~~ **2023**, the automobile sector represented approximately ~~48~~ **40- 45** % of ~~our~~ ZERUST **®** industrial net sales in North America and ~~58~~ **55- 60** % of net sales of ~~our~~ **NTIC' s** joint ventures. **NTIC continues to seek additional applications of its ZERUST ® products and solutions related to electric vehicles and batteries. However,** ~~Increased~~ **increased** demand for electric vehicles **,** which do not contain as many components requiring **these** ~~our ZERUST~~ products and solutions **,** will **still** adversely affect ~~our~~ **NTIC' s** net sales and other operating results and business. NTIC conducts business, either directly or indirectly, through several joint venture arrangements that operate in North America, Europe, and Asia. Each of these joint ventures manufactures, markets, and sells finished products in the geographic territory that it is assigned. NTIC' s receipt of funds as a result of sales by its joint ventures is dependent upon NTIC' s receipt of fees for services that NTIC provides to its joint ventures based primarily on the net sales of the individual joint ventures and NTIC' s receipt of dividend distributions from its joint ventures based on the profitability of its joint ventures. NTIC' s liquidity and financial position in part rely on NTIC' s receipt of fees for services that NTIC provides to its joint ventures and dividend distributions from its joint ventures. During fiscal ~~2022~~ **2023**, NTIC recognized $ 5, ~~085~~ **189**, ~~823~~ **185** in fees and $ 5, ~~723~~ **639**, ~~176~~ **198** in dividend distributions from its joint ventures. Because NTIC owns 50 % or less of each of its joint venture entities, NTIC does not control the decisions of these entities regarding whether to pay dividends and, if paid, how much they should be in any given year. Thus, NTIC cannot guarantee that any of its joint ventures will pay dividends in any given year. The failure of NTIC' s joint ventures to declare dividends or the failure of NTIC to receive fees for services provided to joint ventures in amounts typically expected by NTIC could adversely affect NTIC' s liquidity and financial position. Since a significant portion of NTIC' s earnings results from NTIC' s equity income from joint ventures, and since NTIC' s equity income from joint ventures varies from quarter to quarter, NTIC' s earnings are subject to quarterly fluctuations. A significant portion of NTIC' s earnings results from NTIC' s equity income from its joint ventures. NTIC' s equity in income from joint ventures consists of NTIC' s share of equity in income from its joint ventures based on the overall profitability of the joint ventures. Such profitability varies from quarter to quarter. Since NTIC' s management typically receives quarterly joint venture financial information after the completion of each fiscal quarter, it is impossible for NTIC' s management to cut costs and expenses to make up for any unanticipated shortfall in NTIC' s equity income from joint ventures. Accordingly, the variability in NTIC' s equity income from joint ventures, in turn, subjects NTIC' s earnings to quarterly fluctuations. Risks Related to NTIC' s International Business and the Foreign Markets in which NTIC Operates NTIC sells products and services directly, through its wholly- owned and majority- owned subsidiaries, and indirectly, via a network of joint ventures, independent distributors, manufacturer' s sales representatives, and agents in over 65 countries, including countries in North America, South America, Europe, Asia, and the Middle East. One of NTIC' s strategic objectives is the continued expansion of its international operations. The expansion of NTIC' s existing international operations and entry into additional international markets requires management attention and financial resources. The sale and shipping of products and services across international borders subjects NTIC to extensive and complicated U. S. and foreign governmental trade regulations. Compliance with such regulations is costly and exposes NTIC to penalties for non- compliance. Other laws and regulations that can significantly impact NTIC include various anti- bribery laws, including the U. S. Foreign Corrupt Practices Act, laws restricting business with suspected terrorists, and anti- boycott laws. Any failure to comply with applicable legal and regulatory obligations could impact NTIC in a variety of ways that include, but are not limited to, significant criminal, civil, and administrative penalties, including imprisonment of individuals, fines and penalties, denial of export privileges, seizure of shipments, and restrictions on certain business activities. Also, the failure to comply with applicable legal and regulatory obligations could result in the disruption of NTIC' s shipping and sales activities. Several factors, including implications of withdrawal by the U. S. from, or revision to, international trade agreements, foreign policy changes between the U. S. and other countries, weakened international economic conditions, or the impact of sovereign debt defaults by certain European countries, could adversely affect our international net sales. Additionally, the expansion of our existing international operations and entry into additional international markets require significant management attention and financial resources. In many of the countries in which NTIC sells its products directly or indirectly through NTIC China, Zerust Brazil, Natur- Tec India, Natur- Tec Lanka, Zerust Mexico, Zerust Singapore, Zerust **Taiwan, Zerust** Vietnam **,** and NTI Asean, its joint ventures, distributors, representatives, and agents are, to some degree, subject to political, economic, and / or social instability. NTIC' s international operations expose NTIC and its joint venture partners, distributors, representatives, and agents to risks inherent in operating in foreign jurisdictions. These risks include: ● difficulties in managing and staffing international operations and the required infrastructure costs, including legal, tax, accounting, and information technology; ● the imposition of additional U. S. and foreign governmental controls or regulations, new trade restrictions, and restrictions on the activities of foreign agents, representatives, and distributors, the imposition of costly and lengthy export licensing requirements and changes in duties and tariffs, license obligations, and other non- tariff barriers to trade; ● the imposition of U. S. and / or international sanctions against a country, company, person, or entity with whom NTIC does business that would restrict or prohibit continued business with the sanctioned country, company, person, or entity; ● pricing pressure that NTIC or its joint ventures, distributors, representatives, and agents may experience internationally; ● laws and business practices favoring local companies; ● adverse currency exchange rate fluctuations; ● longer payment cycles and difficulties enforcing agreements and collecting receivables through certain foreign legal systems; ● national and international conflicts, including foreign policy changes or terrorist acts; ● difficulties in enforcing or defending intellectual property rights; ● multiple, changing, and often inconsistent enforcement of laws and regulations; and ● the potential payment of U. S. income taxes on certain earnings of joint ventures upon repatriation. Furthermore, in June 2016, the United Kingdom held a referendum in which voters approved an exit from the European Union, commonly referred to as “ Brexit. ” The United Kingdom officially terminated its membership of the European Union on January 31, 2020 and remained in a transition phase until December 31, 2020. Although the United Kingdom and the European Union struck a bilateral trade and cooperation deal governing the future relationship between the United Kingdom and the European Union, which became effective on May 1, 2021, political and economic uncertainties remain, and it is possible that there will be increased regulatory complexities, which could affect NTIC’ s ability to sell its products in certain European Union countries and subject NTIC to heightened risks in that region. Any of these effects of Brexit, and other similar referenda that NTIC cannot anticipate, could adversely affect its business, operations, and financial results. Out of NTIC’ s joint ventures, NTIC’ s joint venture in Germany is the most significant in terms of assets and income to NTIC. If sales of NTIC’ s products and services by this joint venture were to **significantly** decline ~~significantly~~ or if NTIC’ s relationships with this joint venture were to **significantly** deteriorate ~~significantly~~ , NTIC’ s operating results likely would be adversely affected. NTIC considers its joint venture in Germany (EXCOR) to be individually significant to NTIC’ s consolidated assets and income and, therefore, provides certain additional information regarding EXCOR in the notes to NTIC’ s consolidated financial statements and in certain sections of this report. Of the total equity in income from joint ventures of $ ~~4~~ **6** , ~~725~~ **452** , ~~918~~ **719** during fiscal ~~2022~~ **2023** , NTIC had equity in income from joint ventures of $ ~~3~~ **2** , ~~236~~ **852** , ~~989~~ **229** attributable to EXCOR. Of the total fee income for services provided to joint ventures of $ 5, ~~767~~ **189** , ~~682~~ **185** during fiscal ~~2022~~ **2023** , fees of $ ~~834~~ **816** , ~~725~~ **089** were attributable to EXCOR. Accordingly, if sales of NTIC’ s products and services by this joint venture were to **significantly** decline ~~significantly~~ or if NTIC’ s relationships with this joint venture were to **significantly** deteriorate ~~significantly~~ such that the joint venture terminated or was not motivated to sell NTIC’ s products and services, NTIC’ s operating results likely would be adversely affected. While this is also true with respect to the other joint venture entities of which additional information is provided in NTIC’ s consolidated financial statements and in certain other sections of this report, the significance is not as great as with EXCOR. **While EXCOR’ s financial performance has not significantly deteriorated, it' s profitability has decreased over the past few years as compared to prior years which has adversely affected NTIC’ s financial results. NTIC’ s acquisition of the remaining 50 % ownership interest of HNTI and any future similar acquisitions involve risk.** Effective as of September 1, 2021, NTIC acquired the remaining 50 % ownership interest in its Indian joint venture, HNTI. It is possible that as part of its succession planning efforts with respect to its joint venture partners ~~that~~ **,** NTIC may complete similar acquisitions in the future. Similar future acquisitions will depend, in part, on the availability of similar opportunities or other suitable acquisition candidates at acceptable prices, terms, and conditions and the availability of capital and personnel resources to complete such acquisitions and run and integrate the acquired business effectively. These acquisitions involve risk and may harm NTIC’ s business, reputation, financial condition, and operating results. For instance, the benefits of the HNTI acquisition or any future acquisition may take more time than expected to develop or integrate into NTIC’ s operations, and NTIC cannot guarantee that either the HNTI or any future acquisitions will, in fact, produce any long- term benefits. Acquisitions, such as the HNTI acquisition, involve a number of risks, the occurrence of which could adversely affect NTIC’ s business, reputation, financial condition, and operating results, including: ● diversion of management' s attention to manage and integrate the acquired business; ● disruption to existing operations and plans; ● inability to effectively manage the expanded operations; ● difficulties or delays, which may be exacerbated by the impact of COVID- 19, in integrating and assimilating information and financial systems, internal controls, operations, manufacturing processes and products of an acquired business or in realizing projected efficiencies, growth prospects, cost savings, and other synergies; ● potential loss of key employees, customers or suppliers of the acquired businesses or adverse effects on existing business relationships with employees, customers or suppliers; ● write- off of significant amounts of goodwill, other intangible assets, and / or long- lived assets as a result of deterioration in the performance of an acquired business, adverse market conditions, changes in the competitive landscape, changes in laws or regulations that restrict activities of an acquired business, or as a result of a variety of other circumstances; ● violation of confidentiality, intellectual property, and non- compete obligations or agreements by employees of an acquired business or lack of or inadequate formal intellectual property protection mechanisms in place at an acquired business; ● adverse impact on overall profitability if NTIC’ s expanded operations do not achieve the growth prospects, net sales, net earnings, cost and / or revenue synergies, or other financial results projected in NTIC’ s valuation models, delays in the realization thereof or costs or charges incurred to achieve any revenue or cost synergies; ● reallocation of amounts of capital from other operating initiatives and / or an increase in leverage and debt service requirements to pay acquisition purchase prices, which could in turn restrict NTIC’ s ability to access additional capital when needed or limit its ability to pursue other important elements of its business strategy; ● inaccurate assessment of additional post- acquisition, undisclosed, contingent or other liabilities or problems, unanticipated costs associated with an acquisition; and ● impacts as a result of purchase accounting adjustments, incorrect estimates made in the accounting for acquisitions, incurrence of non- recurring charges, or other potential financial accounting or reporting impacts. In addition, effective internal controls are necessary for NTIC to provide reliable and accurate financial reports and to effectively prevent fraud. The integration of acquired businesses may result in NTIC’ s systems and controls becoming increasingly complex and more difficult to manage. NTIC devotes significant resources and time to comply with the internal control over financial reporting requirements of the Sarbanes- Oxley Act of 2002. However, it cannot be certain that these measures will ensure that NTIC designs, implements, and maintains adequate control over its financial processes and reporting in the future, particularly in the context of acquisitions of other businesses. Any difficulties in the assimilation of acquired businesses into NTIC’ s internal control framework could harm its operating results or cause NTIC to fail to meet its financial reporting obligations. Also, acquisitions require the consent of **the lender** ~~PNC Bank, National Association~~ under NTIC’ s loan agreement ~~with PNC Bank~~ . NTIC cannot predict whether such ~~approvals~~ - **approval** would be forthcoming or the terms on which ~~PNC Bank~~ **the lender** would approve such acquisitions. These risks, among others, could be heightened if NTIC completes a large acquisition or multiple transactions within a relatively short period of time. Given the nature of ~~our~~ **NTIC’ s** business and ~~our~~ **its** global operations, political, economic, and other conditions in foreign countries and regions, including geopolitical risks **,** such as the ~~current conflict~~ **ongoing war** between Russia and Ukraine, may adversely affect ~~our~~ **NTIC’ s** business and results of operations. ~~We have~~ **In 2022, NTIC took actions to** ~~limited~~ -- **limit its** operations in Russia and Ukraine, which **were** ~~have been~~ adversely affected by the **war** ~~ongoing conflict~~ between Russia and Ukraine, though these losses ~~are~~ **did** not ~~expected to~~ have a material impact on ~~our~~ **NTIC’ s** operating results. ~~We~~ **NTIC** terminated ~~our~~ **its** joint venture in Russia in May 2022, which **also did** ~~we believe will~~ not have an adverse effect on ~~our~~ **its** results of operations or financial condition given the immateriality of the joint venture. The broader consequences of this conflict, which may include additional international sanctions, embargoes, regional instability, and geopolitical shifts; increased tensions between the United States and countries in which ~~we~~ **NTIC** ~~operate~~ **operates** ; and the extent of the conflict’ s effect on ~~our~~ **NTIC’ s** business and results of operations **,** as well as the global economy, cannot be predicted. To the extent the ~~current conflict~~ **ongoing war** between Russia and Ukraine adversely affects ~~our~~ **NTIC’ s** business, it may also have the effect of heightening many other risks disclosed herein, any of which could materially and adversely affect ~~our~~ **NTIC’ s** business and results of operations. Such risks include, but are not limited to, adverse effects on macroeconomic conditions, including inflation, demand for ~~our~~ **NTIC’ s** products and potential recessionary economic conditions; increased cyber security threats; adverse changes in trade policies, taxes, government regulations, and tariffs; ~~our~~ **NTIC’ s** ability to ~~maintain or increase our prices in response to rising shipping costs; our ability to~~ implement and execute ~~our~~ **its** business strategy, particularly with regard to ~~our~~ **its** joint ventures; disruptions in global supply chains; ~~our~~ **its** exposure to foreign currency fluctuations; and constraints, volatility, or disruption in the capital markets. The **ongoing war between Israel and Hamas may adversely affect NTIC’ s business and results of** operations **. On October 7, 2023, Hamas, a U. S. designated terrorist organization, launched a series of coordinated attacks from the Gaza Strip onto Israel. On October 8, 2023, Israel formally declared war on Hamas, and the armed conflict is ongoing as of the date of this filing. Hostilities between Israel and Hamas could escalate and involve surrounding countries in the Middle East. Although the length, impact and outcome of the military conflict between Israel and Hamas are highly unpredictable, this conflict could lead to significant market and other disruptions, including disruptions to the oil and gas industry, significant volatility in commodity prices and supply of energy resources, instability in financial markets, supply chain interruptions, political and social instability and other material and adverse effects on macroeconomic conditions. It is not possible at this time to predict or determine the ultimate consequences of this conflict. To the extent the ongoing war between Israel and Hamas adversely affects NTIC’ s business, it may also have the effect of heightening many other risks disclosed herein, any of which could materially and adversely affect NTIC’ s business and results of operations. Such risks include, but are not limited to, adverse effects on the oil and gas industry, adverse effects on macroeconomic conditions, including inflation, demand for NTIC’ s products and potential recessionary economic conditions; increased cyber security threats; adverse changes in trade policies, taxes, government regulations, The results of operations and future prospects** of NTIC China may be adversely affected by ~~China’ s evolving economic, political, and social conditions. The results of operations and future prospects of NTIC China may be adversely affected by~~ , among other things, changes in China’ s political, economic, and social conditions **, escalating tensions between China and Taiwan** , changes in the relationship between China and its western trade partners, changes in policies of the Chinese government, changes in laws and regulations or in the interpretation of existing laws and regulations, changes in foreign exchange regulations, measures that may be introduced to control inflation, such as interest rate increases, ~~and~~ changes in the rates or methods of taxation **, and increasing tensions between the United States and China** . In addition, changes in demand could result from increased competition with local Chinese manufacturers who have cost advantages or who may be preferred suppliers for Chinese end users. Also, Chinese commercial laws, regulations, and interpretations applicable to non- Chinese owned market participants, such as NTIC China, are continually changing **, and such changes may require NTIC China to change how it conducts its business** . These laws, regulations, and interpretations could impose restrictions on NTIC’ s and NTIC China’ s ownership or operations or NTIC’ s interests in China and could adversely affect NTIC’ s business, results of operations, and financial condition. Local regulations in China related to the electric power shortage that began in 2021 may adversely affect NTIC China’ s operations or the operations of our suppliers with facilities in China. For example, these regulations could result in partial or complete factory shutdowns due to a lack of continuous supply of electrical power. Additionally, the price of electric power may be increased, and peak- demand periods during which prices are higher may be extended by local governments. Certain of our resin suppliers with facilities in China were adversely impacted by these regulations, which contributed to constrained supply. Although NTIC China’ s operations have not been significantly impacted by regulations related to electric power shortages to date, such regulations may in the future decrease or shut down production or increase product costs, which could adversely affect NTIC’ s business, results of operations, and financial condition. ~~Intellectual property rights are difficult to enforce in China, which could harm NTIC’ s business, results of operations, or financial condition.~~ Chinese commercial law is relatively undeveloped compared to commercial law in many of NTIC’ s other major markets, and limited protection of intellectual property is available in China as a practical matter. Although NTIC takes precautions in the operation of NTIC China to protect NTIC’ s intellectual property, any local manufacturer of products that NTIC undertakes in China could subject NTIC to an increased risk that unauthorized parties will be able to copy or otherwise obtain or use NTIC' s intellectual property, which could harm NTIC' s business. NTIC may also have limited legal recourse in the event it encounters patent or trademark infringers, which could adversely affect NTIC' s business, results of operations, and financial condition. NTIC China is subject to laws and regulations applicable to foreign investment in China. There are uncertainties regarding the interpretation and enforcement of laws, rules, and policies in China. The Chinese legal system is based on written statutes, and prior court decisions have limited precedential value. Because many laws and regulations are relatively new, and the Chinese legal system is still evolving, the interpretations of many laws, regulations, and rules are not always uniform. Moreover, the relative inexperience of China' s judiciary in many cases creates additional uncertainty as to the outcome of any litigation, and the interpretation of statutes and regulations may be subject to government policies reflecting domestic political agendas. Finally, enforcement of existing laws or contracts based on existing law may be uncertain and sporadic. For the preceding reasons, it may be difficult for NTIC or NTIC China to obtain timely or equitable enforcement of laws ostensibly designed to protect companies like NTIC or NTIC China, which could adversely affect NTIC' s business, results of operations, and financial condition. Failure to comply with the U. S. Foreign Corrupt Practices Act could subject NTIC to, among other things, penalties and legal expenses that could harm its reputation and have a material adverse effect on its business, results of operations, and financial condition. NTIC is subject to the U. S. Foreign Corrupt Practices Act, or the FCPA, which generally prohibits covered entities and their intermediaries from engaging in bribery or making other prohibited payments to foreign officials for the purpose of obtaining or retaining business or other benefits. In addition, the FCPA imposes accounting standards and requirements on U. S. publicly- traded corporations and their foreign affiliates, which are intended to prevent the diversion of corporate funds to the payment of bribes and other improper payments and to prevent the establishment of " off books " slush funds from which such improper payments can be made. NTIC also is subject to similar anticorruption legislation implemented in Europe under the Organization for Economic Co- operation and Development' s Convention on Combating Bribery of Foreign Public Officials in International Business Transactions. NTIC and its joint ventures, distributors, independent representatives, and agents operate in a number of jurisdictions that pose a high risk of potential violations of the FCPA and other anticorruption laws, based on measurements such as Transparency International' s Corruption Perception Index, and NTIC utilizes a number of joint ventures, distributors, independent representatives, and agents for whose actions NTIC could be held liable under the FCPA. NTIC informs its personnel, joint ventures, distributors, independent representatives, and agents of the requirements of the FCPA and other anticorruption laws, including, but not limited to, their reporting requirements. NTIC also has developed and will continue to develop and implement systems for formalizing its contracting processes, performing due diligence on agents, and improving its recordkeeping and auditing practices regarding these regulations. However, there is no guarantee that NTIC' s employees, joint ventures, distributors, independent representatives, or other agents have not or will not engage in conduct undetected by NTIC' s processes and for which NTIC might be held responsible under the FCPA or other anticorruption laws. If NTIC' s employees, joint ventures, distributors, third- party sales representatives, or other agents are found to have engaged in such practices, NTIC could suffer severe penalties, including criminal and civil penalties, disgorgement, and other remedial measures, including further changes or enhancements to its procedures, policies, and controls and potential personnel changes and disciplinary actions. Certain private and foreign companies, including some of NTIC' s competitors, are not subject to prohibitions as strict as those under the FCPA or, even if subjected to strict prohibitions, such prohibitions may be laxly enforced in practice. If NTIC' s competitors engage in corruption, extortion, bribery, pay- offs, theft, or other fraudulent practices, they may receive preferential treatment from personnel of some companies or from government officials, giving NTIC' s competitors an advantage in securing business and putting NTIC at a disadvantage. Because the functional currency of NTIC' s foreign operations is the applicable local currency, NTIC is exposed to foreign currency exchange rate risk arising from transactions in the normal course of business. NTIC' s principal exchange rate exposure is with the Euro, the Japanese Yen, the Indian Rupee, the Chinese Renminbi, the South Korean Won, and the English Pound against the U. S. dollar. NTIC' s fees for services provided to its joint ventures and dividend distributions from these foreign entities are paid in foreign currencies; thus, fluctuations in foreign currency exchange rates could result in declines in NTIC' s earnings. Any changes in foreign currency exchange rates would be reflected as a foreign currency translation adjustment and would not change NTIC' s equity in income from joint ventures reflected in its consolidated statements of operations. NTIC does not hedge against its foreign currency exchange rate risk. NTIC conducts business, or is contemplating expansion, in developing markets with economies that tend to be more volatile than those in the United States and Western Europe. The risk of doing business in developing markets such as China, Brazil, India, Russia, the United Arab Emirates, Mexico, and other economically volatile areas could adversely affect NTIC' s operations and earnings. Such risks include the financial instability among customers in these regions, political instability, fraud or corruption, and other non- economic factors, such as the impact of ~~the~~ COVID- 19 ~~pandemic~~ and irregular trade flows that need to be managed successfully with the help of the local governments. In addition, commercial laws in some developing countries can be vague, inconsistently administered, and retroactively applied. If NTIC is deemed not to be in compliance with applicable laws in developing countries where NTIC conducts business, its prospects and business in those countries could be harmed, which could then have a material adverse impact on NTIC' s operating results and financial position. NTIC' s failure to successfully manage economic, political, and other risks relating to doing business in developing countries and economically and politically volatile areas could adversely affect its business. NTIC' s products are sold in intensely competitive markets throughout the world. This intense competition could result in pricing pressures, lower sales, reduced margins, and lower market share. With respect to its rust and corrosion inhibiting products, NTIC competes on the basis of product innovation, quality, reliability, product support, customer service, reputation, and price. With respect to its Natur- Tec ® resin compounds and finished products, NTIC competes on the basis of performance, brand awareness, distribution network, product availability, product offering, shelf life, place of manufacture, and price. NTIC often competes with numerous manufacturers, many of which have substantially greater financial, marketing, and other resources than NTIC. As a result, they may be able to adapt more quickly than NTIC to new or emerging technologies, industry trends, and changes in customer requirements or to devote greater resources to the promotion and sale of their products than NTIC. In addition, competition could increase if new companies enter the markets in which NTIC competes, especially when the barriers to entry are low, which may be true with respect to NTIC' s rust and corrosion prevention business, or if existing competitors expand their product lines or intensify efforts within existing product lines. NTIC' s current products, products under development, and its ability to develop new and improved products may be insufficient to enable NTIC to compete effectively with its competitors. No assurance can be provided that NTIC will be able to compete effectively, which would harm its business and operating results. In particular, NTIC has experienced more intense competition with respect to many of its traditional ZERUST ® rust and corrosion inhibiting products and services, which has led to decreased pricing and smaller margins for NTIC. ~~In fiscal 2021 and fiscal 2022, NTIC has experienced lower margins on its contracts with Chinese automotive customers as a result of the COVID- 19 pandemic and an increase in the production of electric vehicles, which have fewer parts that require corrosion inhibiting packaging. NTIC anticipates that such intense competition likely will continue and that new competitors may emerge, including plastic extrusion companies, which would continue to adversely affect NTIC' s operating results.~~ NTIC' s ZERUST ® rust and corrosion inhibiting products and services generate a significant portion of NTIC' s net sales and the net sales of NTIC' s joint ventures. Accordingly, if sales of these products and services were to decline, NTIC' s operating results would be adversely affected. NTIC' s ZERUST ® rust and corrosion inhibiting products and services generate a significant portion of NTIC' s net sales and the net sales of NTIC' s joint ventures. During fiscal ~~2022~~ **2023** , 77. ~~5~~ **3** % of NTIC' s consolidated net sales were derived from sales of ZERUST ® rust and corrosion inhibiting products and services. While the net sales of NTIC' s joint ventures are not included in NTIC' s net sales on NTIC' s consolidated financial statements, NTIC' s receipt of fees for services that NTIC provides to its joint ventures and NTIC' s receipt of dividend distributions from its joint ventures are based primarily on the revenues and profitability of the joint ventures. Accordingly, if sales of these products and services were to decline due to increased competition, the introduction of a new disruptive technology, or otherwise, NTIC' s operating results would be adversely affected. One of NTIC' s strategies is to enhance its existing products and develop and market new products that respond to customer needs. NTIC may not be able to compete effectively with its competitors unless NTIC can keep up with existing or new products or alternative technologies in the markets in which it competes. Product development requires significant research and development, financial, and other resources. Although in the past NTIC has implemented lean manufacturing and other productivity improvement initiatives to provide investment funding for new products, no assurance can be provided that NTIC will be able to continue to do so in the future. Product improvements and new product introductions also require significant planning, design, development, and testing at the technological, product, and manufacturing process levels, and NTIC may not be able to timely develop product improvements or new products. NTIC' s competitors' new products may beat NTIC' s products to market, may be more effective or less expensive than NTIC' s products, or may render NTIC' s products obsolete. Any new products that NTIC may develop may not receive market acceptance or otherwise generate any meaningful net sales or profits for NTIC relative to its expectations, based on, among other things, existing and anticipated investments in manufacturing capacity and commitments to fund advertising, marketing, promotional programs, and research and development. NTIC has invested and intends to continue to invest additional research and development and marketing efforts and resources into the application of its corrosion prevention solutions into the oil and gas industry and the continued launch of its Natur- Tec ® resin compounds and finished products. No assurance can be provided, however, that NTIC' s investments in these new markets and products will be successful and result in additional revenue to NTIC. In an effort to increase net sales, NTIC has expanded the marketing of its corrosion prevention solutions into the oil and gas industry and its Natur- Tec ® resin compounds and finished products. NTIC expects to continue to invest additional research and development and marketing efforts and resources into these strategic initiatives. No assurance can be provided, however, that such strategic initiatives will be successful or that NTIC will be successful in obtaining additional revenue as a result of them. The introduction of new products into new markets takes significant resources, and there can be no assurance that NTIC is dedicating a sufficient amount of resources to ensure the success of these strategic initiatives. The sale of NTIC' s ZERUST ® rust and corrosion inhibiting products and services into the oil and gas industry, in particular, typically involves a long sales cycle, often including a one- to multi- year trial period with each customer and a slow integration process thereafter. This long sales cycle may cause NTIC' s management, stockholders, and investors to lose faith in the business opportunities for NTIC' s ZERUST ® rust and corrosion inhibiting products and services in the oil and gas industry. Additionally, projects NTIC completes for oil and gas industry customers typically involve short turnaround times, and failure to meet these expectations could damage NTIC' s ability to successfully promote its corrosion prevention solutions into the oil and gas industry. NTIC' s strategy of expanding its corrosion prevention solutions into the oil and gas industry and continuing the expansion of its Natur- Tec ® bioplastics resin compounds and finished products is risky and may not prove to be successful, which could harm NTIC' s operating results and financial condition. NTIC' s strategy of expanding its corrosion prevention solutions into the oil and gas industry and continuing the expansion of its Natur- Tec ® bioplastics resin compounds and finished products, either directly or indirectly through joint ventures and independent distributors and agents, is risky and subject to all of the risks inherent in the establishment of a new business enterprise, including: ● the absence of a significant operating history; ● the lack of commercialized products; ● the lack of market acceptance of new products; ● expected substantial and continual losses for such businesses for the foreseeable future; ● the lack of manufacturing experience and limited marketing experience; ● an expected reliance on third parties for the manufacture and commercialization of some of the products; ● a competitive environment characterized by numerous, well- established and well- capitalized competitors; ● insufficient capital and other resources; ~~and~~ ● reliance on key personnel and the need to hire and train local support in a timely manner in order to support customer needs; and NTIC uses third- party manufacturers to produce the majority of its products. In addition, NTIC relies upon certain contractors for logistical services. Although NTIC' s arrangements with its contract manufacturers and contractors may contain provisions for warranty expense reimbursement, NTIC may remain responsible to its customers for warranty service in the event of product defects and could experience an unanticipated product defect or warranty liability. In addition, product defects could harm NTIC' s reputation amongst its customers. The commercial success of NTIC' s Natur- Tec ® resin compounds and finished products depends on the widespread market acceptance of products manufactured with bio- based and biodegradable resins. Although there is a developed market for petroleum- based plastics, the market for " bioplastics " which are plastics produced with bio- based resins, which are derived from renewable resources such as corn or cellulosic / plant material or blends thereof, or plastics that are engineered to be fully biodegradable or both, is still developing. The commercial success of NTIC' s Natur- Tec ® resin compounds and finished products depends on the widespread market acceptance of products manufactured with bio- based and biodegradable resins, which may result, in part, from government action at the federal, state or local level. For example, in June 2022, the State of California passed a law intended to reduce single- use plastics. Internationally, the government of India ~~recently~~ announced a phased ban on the manufacture and sale of single- use plastics beginning in July 2022. Similarly, in January 2021, China implemented a ban on single- use plastic utensils, bags and certain other single- use plastic items. Despite these efforts and other measures taken at the federal, state and local levels, including policies related to the collection of organics, it is currently difficult to assess or predict with any assurance the potential size, timing, and viability of market opportunities for NTIC' s Natur- Tec ® resin compounds and finished products **. Additionally, while legislation has helped increase demand for bioplastics, a lack of enforcement and higher costs associated with bioplastics have adversely impacted the demand anticipated to stem from such legislation** . The traditional plastics market sector is well- established with entrenched competitors with whom NTIC competes. Pricing for traditional plastics has been highly volatile in recent years, which drives, to some extent, the commercial and other support for bioplastics. While NTIC expects to be able to command a premium price for its Natur- Tec ® resin compounds and finished products, a widening gap in the pricing for bioplastics versus petroleum- based plastics may reduce the size of the addressable market for NTIC' s Natur- Tec ® resin compounds and finished products. In addition, the growth of the market will create some pressure on price for applications today considered commodities, including in particular NTIC' s current Natur- Tec ® finished products. In addition to its direct sales force, NTIC relies on its joint ventures, distributors, manufacturer' s sales representatives, and other agents to market and sell its products in the United States and internationally. NTIC' s joint ventures, distributors, manufacturer' s sales representatives, and other agents might terminate their relationship with NTIC or devote insufficient sales efforts to NTIC' s products. NTIC does not control its joint ventures, distributors, manufacturer' s sales representatives, and other agents, and they may not be successful in implementing NTIC' s marketing plans. NTIC' s failure to maintain its existing relationships with these entities, or its failure to recruit and retain additional skilled joint venture partners, distributors, manufacturer' s sales representatives, and other agents, could have an adverse effect on NTIC' s operations. It is anticipated that several of NTIC' s joint venture partners will retire during the next several years, which will require a transition on the part of the joint venture as well as NTIC and could harm NTIC' s relationship with the joint venture and NTIC' s business. NTIC may be subject to product liability claims or other claims arising out of the activities of its joint ventures, which could adversely affect NTIC and its business. While NTIC is not aware of any specific potential risk beyond its initial investment in, and any undistributed earnings of, each of its joint ventures, there can be no assurance that NTIC will not be subject to lawsuits based on product liability claims or other claims arising out of the activities of its joint ventures. To mitigate the ramifications of such an occurrence, NTIC maintains liability insurance specifically applicable to its ownership positions in its joint venture arrangements in excess of any insurance the joint ventures may maintain. No assurance can be provided, however, that such insurance will be available or adequate in the event of a claim. The sale of ZERUST ® rust and corrosion inhibiting products into the oil and gas industry is risky in light of the hazards typically associated with such operations and the significant amount of potential liability involved, which could adversely affect NTIC' s business if ZERUST ® rust and corrosion inhibiting products are involved, even if the cause of such events was not related to NTIC' s products. Because NTIC sells its ZERUST ® rust and corrosion inhibiting products into the oil and gas industry, NTIC is subject to some of the risks and hazards typically associated with such operations, including hazards such as fire, explosion, blowouts, cratering, unplanned gas releases, and spills, each of which could be claimed to be attributed to the failure of NTIC' s products to perform as anticipated. If such events occur and NTIC' s products are involved, NTIC' s business and operating results may suffer, even if the cause of such events was not related to NTIC' s products. The sale of ZERUST ® rust and corrosion inhibiting products into the oil and gas industry is dependent on certain macroeconomic factors, including seasonality of installations, fluctuations of crude oil prices, global events and regulatory guidelines. Seasonality of Installations: In the past, NTIC has experienced some seasonality with respect to the sale of its ZERUST ® rust and corrosion inhibiting products into the oil and gas industry, with sales during parts of the second and third fiscal quarters being adversely affected by winter in the United States. **However, in fiscal 2023, this seasonality began to decrease somewhat as opportunities increased globally.** Fluctuations of Crude Oil Prices: The sale of NTIC' s ZERUST ® rust and corrosion inhibiting products into the oil and gas industry, particularly in the United States, has historically been hampered by low / unstable global crude oil prices. Although the price of crude oil neared an all- time high in fiscal 2022, **prices receded in 2023, and** low global crude oil prices have been and may in the future be caused **by** OPEC decisions and other macroeconomic factors affecting supply and demand. NTIC believes low global crude oil prices constrain capital improvement budgets of its existing and prospective customers and may result in personnel turnover at its oil and gas customers or prospects. The ongoing ~~conflict~~ **war** between Russia and Ukraine has escalated tensions between Russia and other countries, some of which have imposed sanctions and taken other economic actions that ~~have~~ contributed to **high** ~~, and are expected to continue to contribute to, rising~~ global crude oil prices ~~, which prices had already risen substantially due to~~ **in 2022 before receding in 2023 partially as a result of decreased** inflationary pressures. Additional international sanctions ~~against~~ **on** Russia may be imposed, which could ~~further~~ **again** increase these costs. NTIC believes the ongoing ~~conflict~~ **war** between Russia and Ukraine ~~and the continued impact of high rates of inflation~~ may create uncertainty among its existing and prospective customers, which may cause them to halt oil and gas projects or elect to decrease capital improvement budgets, either of which could harm NTIC' s ability to sell its products into the oil and gas industry **. NTIC believes that similar impacts may result from the war between Israel and Hamas, particularly if the war escalates and surrounding countries become involved** . Global Events: The sale of Zerust Oil & Gas solutions to Oil & Gas sector clients is impacted by events like the COVID **- 19** pandemic and geopolitical tensions in key oil producing regions like the Middle East. These affect the ability of the teams to have face- to- face meetings, travel for site surveys and implementations, etc., with the added effect of potential supply chain delays / impacts that could delay or postpone sales. Regulatory Guidelines: The Oil & Gas sector is very conservative and, in addition to long- term trials on- site, client decision makers typically default to guidelines from the American Petroleum Institute (API), Association of Materials Protection and Performance (AMPP), Pipeline Hazardous Materials Safety Administration (PHMSA), European Committee for the Study of Corrosion (CEOCOR), etc. Getting a new technology / solution approach included in these guidelines typically takes years of committee lobbying, client support, field trials and lab validation. The Zerust solutions have been included in several technical reports / committees from these groups though getting full validation is likely to take a few more years. The expansion of NTIC' s corrosion prevention solutions into the oil and gas industry and the continued launch of NTIC' s Natur- Tec ® resin compounds and finished products may require additional capital in the future, which may not be available or may be available only on unfavorable terms. In addition, any equity financings may be dilutive to NTIC' s stockholders. The expansion of NTIC' s corrosion prevention solutions into the oil and gas industry and the continued expansion of NTIC' s Natur- Tec ® resin compounds and finished products will continue to require resources during fiscal ~~2023~~ **2024** and beyond. To the extent that NTIC' s existing capital, including amounts available under its revolving line of credit, is insufficient to meet these requirements, NTIC may raise additional capital through financings or additional borrowings. Any equity or debt financing, if available at all, may be on terms that are not favorable to NTIC, and any equity financings could result in dilution to NTIC' s stockholders. NTIC' s business, properties, and products are subject to a wide variety of international, federal, state, and local laws, rules, taxes, and regulations relating to the protection of the environment, natural resources, and worker health and safety and the use, management, storage, and disposal of hazardous substances, wastes, and other regulated materials. These laws, rules, and regulations may affect the way NTIC conducts its operations, and the failure to comply with these regulations could lead to fines and other penalties. These laws, rules, and regulations may be subject to change by the Biden administration, which ~~has stalled~~ **denied a key permit in the** construction of the Keystone XL Pipeline **, leading to the abandonment of the project,** and may in the future take action to further restrict such activities. Additionally, new environmental laws, rules, and regulations **with** ~~, such as certain~~ provisions **similar to those** of the Inflation Reduction Act of 2022, which includes measures to reduce emissions, may be enacted, which may adversely affect NTIC' s business. Further, because NTIC owns and operates real property, various environmental laws also may impose liability on NTIC for the costs of cleaning up and responding to hazardous substances that may have been released on NTIC' s property, including releases unknown to NTIC. These environmental laws and regulations also could require NTIC to pay for environmental remediation and response costs at third- party locations where NTIC disposed of or recycled hazardous substances. NTIC' s future costs of complying with the various environmental requirements, as they now exist or may be altered in the future, could adversely affect NTIC' s financial condition and operating results. NTIC is also subject to other international, federal, and state laws, rules, and regulations, the future non- compliance with which may harm NTIC' s business or may adversely affect the demand for some of its products. Changes in laws and regulations, including changes in accounting standards and taxation changes, including tax rate changes, new tax laws, including the changes to U. S. federal tax laws included in the Inflation Reduction Act of 2022, such as a 1 % excise tax on stock repurchases, and revised tax law interpretations, also may adversely affect NTIC' s operating results. The mix of pre- tax income or loss among the tax jurisdictions in which NTIC operates, which have varying tax rates, could impact NTIC' s effective tax rate. NTIC is subject to income taxes as well as non- income based taxes in both the United States and various foreign jurisdictions. Judgment is required in determining the worldwide provision for income taxes, other tax liabilities, interest, and penalties. Future events could change management' s assessment. NTIC operates within multiple taxing jurisdictions and is subject to tax audits in these jurisdictions. These audits can involve complex issues, which may require an extended period of time to resolve. NTIC also has made assumptions about the realization of deferred tax assets. Changes in these assumptions or jurisdictional regulations could result in a valuation allowance for these assets. Final determination of tax audits or tax disputes may be different from what is currently reflected by NTIC' s income tax provisions and accruals. The manufacture, sale, and use of NTIC' s Natur- Tec ® bio- plastic resin compounds are subject to regulation by the U. S. FDA. The FDA' s regulations are concerned with substances used indirectly in food packaging materials, not with specific finished food packaging products. Thus, food and beverage containers are in compliance with FDA regulations if the components used in the food and beverage containers: (i) are approved by the FDA as indirect food additives for their intended uses and comply with the applicable FDA indirect food additive regulations; or (ii) are generally recognized as safe for their intended uses and are of suitable purity for those intended uses. NTIC believes that its Natur- Tec ® resin compounds comply with all FDA requirements. However, failure to comply with FDA regulations could subject NTIC to administrative, civil, or criminal penalties. **If** NTIC' s ~~compliance~~ **internal control over financial reporting or its disclosure controls and procedures are not effective, NTIC may not be able to accurately report its financial results, which may cause investors to lose confidence in NTIC' s reported financial information and may lead to a decline in its stock price. NTIC' s management is responsible for establishing and maintaining adequate internal control over our financial reporting, as defined in Rule 13a- 15 (f) under the Exchange Act, which is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance** with **U. S. generally accepted accounting principles. NTIC' s internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (ii) provide reasonable assurance 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 of the Company are being made only in accordance with authorizations of management and directors of the Company; and (iii) 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. During the preparation of NTIC' s consolidated financial statements included in this annual report on Form 10- K, NTIC' s management identified a material weakness in NTIC' s internal control over financial reporting relating to the probability assessment associated with the recognition of income related to employee retention credits that may be available to NTIC under the Coronavirus Aid, Relief, and Economic Security Act (" CARES Act ") and subsequent legislation providing numerous tax provisions and other stimulus measures, including employee retention credits, which are refundable tax credits against certain employment taxes. While NTIC is taking steps to remediate the material weakness, NTIC cannot provide any assurance that such remedial measures, or any other remedial measures NTIC takes, will be effective. If NTIC fails to maintain effective internal control over financial reporting, NTIC may not be able to accurately report its financial results, which may, among other adverse consequences, cause investors to lose confidence in NTIC' s reported financial information and lead to a decline in its stock price. In addition, a material weakness will not be considered remediated until the applicable controls operate for a sufficient period of time and management has concluded, through testing, that these controls are designed and operating effectively. Any change in accounting principles generally accepted in the United States of America **requiring** ~~and any changes in such principles might adversely affect~~ NTIC ~~' s operating results and financial condition. Any requirement~~ to consolidate **its** ~~NTIC' s~~ joint ventures could adversely affect NTIC' s operating results ~~and financial condition~~. If there were a change in accounting rules and NTIC were required to fully consolidate its joint ventures or if NTIC' s joint ventures otherwise would be required to be consolidated with NTIC, NTIC and the individual joint venture would incur significant additional costs. In addition, other accounting pronouncements issued in the future could have a material cost associated with NTIC' s implementation of such new accounting pronouncements. Risks Related to NTIC' s Intellectual Property NTIC' s reliance upon patents, trademark laws, trade secrets, and contractual provisions to protect its proprietary rights may not be sufficient to protect its intellectual property from others who may sell similar products. NTIC holds patents relating to various aspects of its products and believes that proprietary technical know- how is critical to many of its products. Proprietary rights relating to NTIC' s products are protected from unauthorized use by third parties only to the extent that they are covered by valid and enforceable patents or are maintained in confidence as trade secrets. NTIC cannot be certain that it will be issued any patents from any pending or future patent applications owned by or licensed to NTIC or that the claims allowed under any issued patents will be sufficiently broad to protect its technology. In the absence of patent protection, NTIC may be vulnerable to competitors who attempt to copy NTIC' s products or gain access to its trade secrets and know- how. NTIC' s competitors may initiate litigation to challenge the validity of NTIC' s patents, or they may use their resources to design comparable products that do not infringe NTIC' s patents. NTIC may incur substantial costs if its competitors initiate litigation to challenge the validity of its patents or if it initiates any proceedings to protect its proprietary rights, and if the outcome of any such litigation is unfavorable to NTIC, its business and operating results could be materially adversely affected. In addition, NTIC relies substantially on trade secrets and proprietary know- how that it seeks to protect, in part, by confidentiality agreements with its employees and consultants. These agreements may be breached, and NTIC may not have adequate remedies for any such breach. Even if these confidentiality agreements are not breached, NTIC' s trade secrets may otherwise become known or be independently developed by competitors. The trading volume of NTIC' s common stock is typically very low, leaving NTIC' s common stock open to risk of high volatility. The number of shares of NTIC' s common stock being traded daily is often very low, and on some trading days, there is no trading volume at all. During fiscal ~~2022~~ **2023**, the daily trading volume ranged from ~~0~~ **400** shares to ~~40~~ **340**, ~~600~~ **700** shares. Any NTIC stockholder wishing to sell his, her, or its stock may cause a significant fluctuation in the trading price of NTIC' s common stock. In addition, low trading volume of a stock increases the possibility that, despite rules against such activity, the price of the stock may be manipulated by persons acting in their own self- interest. NTIC may not have adequate market makers and market making activity to prevent manipulation in its common stock. The price and trading volume of NTIC' s common stock has been, and may continue to be, volatile. The market price and trading volume of NTIC' s common stock price historically has fluctuated over a wide range. During fiscal ~~2022~~ **2023**, the sale price of NTIC' s common stock ranged from a low of $ ~~9~~ **10**. ~~05~~ **10** per share to a high of $ ~~18~~ **15**. 00 per share, and the daily trading volume ranged from ~~0~~ **400** shares to ~~40~~ **340**, ~~600~~ **700** shares. It is likely that the price and trading volume of NTIC' s common stock will continue to fluctuate in the future. The securities of small capitalization companies, including NTIC, from time- to- time experience significant price and volume fluctuations, often unrelated to the operating performance of these companies. Securities class action litigation is sometimes brought against a company following periods of volatility in the market price of its securities or for other reasons. NTIC may become the target of similar litigation, especially if NTIC fails to meet its annual projected financial guidance or lowers its annual projected financial guidance. Securities litigation, whether with or without merit, could result in substantial costs and divert management' s attention and resources, which could harm NTIC' s business, operating results, and financial condition as well as the market price of its common stock. As of November ~~14~~ **10**, ~~2022~~ **2023**, NTIC had 9, ~~366~~ **427**, ~~357~~ **599** shares of common stock outstanding, 22. 4 % of which were beneficially owned by directors, executive officers, principal stockholders, and their respective affiliates. The stock of companies with a substantial amount of stock held by insiders is usually not as liquid as the stock of other public companies where insider ownership is not as concentrated. Thus, the trading market for shares of NTIC' s common stock may not be as liquid as the stock of other public companies. If securities or industry analysts do not publish research or reports about NTIC' s business, or if they adversely change their recommendations regarding NTIC' s common stock, the market price for NTIC' s common stock and trading volume could decline. The trading market for NTIC' s common stock has been influenced by research or reports that industry or securities analysts publish about NTIC or its business. If one or more analysts who cover NTIC downgrade NTIC' s common stock, the market price for NTIC' s common stock would likely decline. If one or more cease coverage of NTIC or fail to regularly publish reports on NTIC, NTIC could lose visibility in the financial markets, which, in turn, could cause the market price or trading volume for NTIC' s common stock to decline. One of NTIC' s principal stockholders beneficially owns a significant percentage of NTIC' s outstanding common stock and is affiliated with NTIC' s President and Chief Executive Officer and, thus, may be able to influence matters requiring stockholder approval, including the election of directors, and could discourage or otherwise impede a transaction in which a third- party wishes to purchase NTIC' s outstanding shares at a premium. As of November ~~14~~ **10** , ~~2022~~ **2023** , Inter Alia Holding Company, or Inter Alia, beneficially owned approximately 12. 8 % of NTIC' s outstanding common stock. Inter Alia is an entity partially owned by G. Patrick Lynch, NTIC' s President and Chief Executive Officer and director, as well as two other members of the Lynch family. Mr. Lynch shares voting and dispositive power of shares of NTIC' s common stock held by Inter Alia with the other owners. As a result of his share ownership through Inter Alia and his position as President and Chief Executive Officer and director of NTIC, Mr. Lynch may be able to influence the affairs and actions of NTIC, including matters requiring stockholder approval, such as the election of directors and approval of significant corporate transactions. The interests of Mr. Lynch and Inter Alia may differ from the interests of NTIC' s other stockholders. This concentration of ownership may have the effect of delaying, preventing, or deterring a change in control of NTIC, could deprive NTIC' s stockholders of an opportunity to receive a premium for their common stock as part of a sale or merger of NTIC, and may negatively affect the market price of NTIC' s common stock. Transactions that could be affected by this concentration of ownership include proxy contests, tender offers, mergers, or other purchases of common stock that could give stockholders the opportunity to realize a premium over the then- prevailing market price for shares of NTIC' s common stock. General Risk Factors Climate change, or legal, regulatory, or market measures to address climate change, may negatively affect our business and operations. Climate change resulting from increased concentrations of carbon dioxide and other greenhouse gases in the atmosphere may have an adverse impact on global temperatures, weather patterns and the frequency and severity of extreme weather and natural disasters, such as hurricanes, tornadoes, earthquakes, wildfires or flooding. Climate change may also cause water shortages, changes in rainfall and storm patterns, changes in sea levels and other negative weather and climate patterns. Such weather conditions could pose physical risks to our facilities and disrupt operation of our supply chain and may impact operational costs. The increasing global focus on climate change and the need for corporate change also may lead to new regional, federal, and / or global legal and regulatory requirements to reduce or mitigate the effects of greenhouse gases. **The** ~~Inconsistency~~ **inconsistency** of regulations in the countries in which we operate may affect the costs of compliance with such legal or regulatory requirements. Additionally, in the event that such regulation is enacted and is more aggressive than the sustainability measures that we are currently undertaking to monitor our emissions and improve our energy efficiently, we may be subject to curtailment or reduced access to resources or experience significant increases in our costs of operation and delivery. As a result, climate change could negatively affect our business and operations. In addition, public company stockholders are increasingly sensitive to the climate change impacts and mitigation efforts of companies, are increasingly seeking enhanced disclosure on the risks, challenges, governance implications, and financial impacts of climate change faced by companies and are demanding that companies take a proactive approach to addressing perceived environmental risks, including risks associated with climate change, relating to their operations. In an effort to increase climate change disclosure, the SEC proposed climate disclosure rules that would require new climate- related disclosure in SEC filings, as described below. Adverse publicity or climate- related litigation that may result from such enhanced disclosure or stockholder perception could have a negative impact on our business. New climate disclosure rules, if adopted by the SEC, may increase our costs and litigation risks, which would materially and adversely affect our future results of operations and financial condition. During fiscal 2022, the SEC proposed new climate disclosure rules, which if adopted, would require new climate- related disclosure in SEC filings, including certain climate-related metrics and greenhouse gas emissions data, information about climate- related targets and goals, transition plans, if any, and extensive attestation requirements. In addition to requiring filers to quantify and disclose direct emissions data, the new rules also would require disclosure of climate impact arising from the operations and uses by the filer' s business partners and contractors and end- users of the filer' s products and / or services. We are currently assessing the impact of the new rules, if adopted as proposed, but at this time, we cannot predict the costs of implementation or any potential adverse impacts resulting from the new rules if adopted. However, we may incur increased costs relating to the assessment and disclosure of climate-related risks and increased litigation risks related to disclosures made pursuant to the new rules, either of which could materially and adversely affect our future results of operations and financial condition. Severe weather could have a material adverse effect on ~~our~~ **NTIC' s** business. NTIC' s business has been and **in the future** could ~~in the future~~ be materially and adversely affected by severe weather. NTIC' s customers, including in particular NTIC' s oil and gas customers, may have operations located in parts of the southern United States or other places and may be adversely affected by hurricanes and tropical storms, resulting in reduced demand for NTIC' s products and services or increased operating costs. Furthermore, NTIC' s customers and raw material suppliers' operations have been and could in the future be adversely affected by such hurricanes and other extreme or seasonal weather conditions ~~. For example, during fiscal year 2021, extreme weather caused supply chain disruptions and caused delays in receiving base resins~~ . Adverse weather can also directly impede NTIC' s operations. Repercussions of severe weather conditions may include: ● curtailment of services or reduced demand for products; ● weather- related damage to facilities and equipment, resulting in suspension of operations; ● inability to deliver equipment, personnel and products to job sites in accordance with contract schedules or increased transportation or other operating costs; and ● loss of productivity. These constraints could delay NTIC' s operations and materially increase NTIC' s operating and capital costs. NTIC may grow its business through additional joint ventures, subsidiaries, alliances, and acquisitions, which could be risky and harm its business. One of NTIC' s growth strategies may be to expand its business by entering into additional joint ventures and alliances and acquiring businesses, technologies, and products that complement or augment NTIC' s existing products. The benefits of a joint venture, alliance, or acquisition may take more time than expected to develop, and NTIC cannot guarantee that any future joint ventures, alliances, or acquisitions will in fact produce the intended benefits. In addition, joint ventures, alliances, and acquisitions involve a number of risks, including: ● diversion of management' s attention; ● difficulties in assimilating the operations and products of a new joint venture or acquired business or in realizing projected efficiencies, cost savings, and revenue synergies; ● potential loss of key employees or customers of the new joint venture or acquired business or adverse effects on existing business relationships with suppliers and customers; ● adverse impact on overall profitability if the new joint venture or acquired business does not achieve the financial results projected in NTIC' s valuation models; ● reallocation of amounts of capital from other operating initiatives and / or an increase in NTIC' s leverage and debt service requirements to pay the joint venture capital contribution or the acquisition purchase price, which could in turn restrict NTIC' s ability to access additional capital when needed or to pursue other important elements of NTIC' s business strategy; ● inaccurate assessment of undisclosed, contingent, or other liabilities or problems and unanticipated costs associated with the new joint venture or acquisition; and ● incorrect estimates made in the accounting for acquisitions, occurrence of non- recurring charges, and write-off of significant amounts of goodwill that could adversely affect NTIC' s operating results. NTIC' s ability to grow through joint ventures, alliances, and acquisitions will depend, in part, on the availability of suitable opportunities at an acceptable cost, NTIC' s ability to compete effectively for these opportunities, and the availability of capital to complete such transactions. NTIC relies on its management information systems for inventory management, distribution, and other functions. If these information systems fail to adequately perform these functions or if NTIC experiences an interruption in their operation, NTIC' s business and operating results could be adversely affected. The efficient operation of NTIC' s business is dependent on its management information systems. NTIC relies on its management information systems to effectively manage accounting and financial functions; manage order entry, order fulfillment, and inventory replenishment processes; and to maintain its research and development data. The failure of management information systems to perform as anticipated could disrupt NTIC' s business and product development and could result in decreased sales, causing NTIC' s business and operating results to suffer. In addition, NTIC' s management information systems are vulnerable to damage or interruption from natural or man- made disasters, including terrorist attacks, attacks by computer viruses or hackers, power loss to computer systems, Internet outages, and telecommunications or data network failure. Any such interruption could adversely affect NTIC' s business and operating results. NTIC' s **current enterprise resource planning (" ERP ") system is outdated and in need of a, upgrade or conversion to a new ERP system. NTIC intends to implement a new ERP system during the next year. Implementing new or upgraded systems carries substantial risk, including failure to operate as designed, failure to properly integrate with other systems, potential loss of data or information, cost overruns, implementation delays, and disruption of operations. Third- party vendors are also relied upon to design, program, maintain, and service the ERP system. Any failures of these vendors to properly deliver their services could have a material adverse effect on NTIC' s business. NTIC plans to run parallel systems (existing system with new system) for multiple quarters, however, any disruptions or malfunctions affecting NTIC' s ERP system implementation plan could cause critical information upon which NTIC relies to be delayed, defective, corrupted, inadequate, or inaccessible. NTIC may experience difficulties in its business operations, or difficulties in operating its business under these systems, either of which could disrupt its operations, including its ability to timely invoice customers, ship and track product orders, project inventory requirements, manage its supply chain, effectively manage customer accounts receivable and pay suppliers within terms and otherwise adequately service its customers, and could lead to increased costs and other difficulties. In the event NTIC experiences significant disruptions as a result of the implementation or upgrade of new systems or otherwise, it may not be able to fix its systems in an efficient and timely manner. NTIC may not realize the benefits it anticipates should all or part of the ERP system implementation process prove to be ineffective. Accordingly, such events may disrupt or reduce the efficiency of NTIC' s entire operations and have a material adverse effect on its operating results and cash flows. NTIC' s** business could be negatively impacted by cyber security threats. In the ordinary course of NTIC' s business, NTIC uses its management information systems to store and access proprietary business information. NTIC faces various cyber security threats, including cyber security attacks to its information technology infrastructure and attempts by others to gain access to its proprietary or sensitive information. The procedures and controls NTIC uses to monitor these threats and mitigate its exposure may not be sufficient to prevent cyber security incidents. The result of these incidents could include disrupted operations, lost opportunities, misstated financial data, liability for stolen assets or information, increased costs arising from the implementation of additional security protective measures, litigation, and reputational damage. Any remedial costs or other liabilities related to cyber security incidents may not be fully insured or indemnified by other means. Additionally, on ~~February 9~~ **July 26** , ~~2022~~ **2023** , the SEC ~~proposed new~~ **issued final** rules related to cyber security risk management ~~, which~~ **and related disclosures. NTIC and its Audit Committee continue to monitor and analyze the impact these rules** may ~~increase~~ **have on** NTIC' s regulatory burden and cost of compliance related to cyber security threats. NTIC' s quarterly results are typically unpredictable and subject to variation. NTIC' s quarterly operating results vary from quarter to quarter for a variety of reasons. For example, NTIC' s quarterly sales to joint ventures can be affected by individual orders to joint ventures. Because of the typical size of individual orders to joint ventures and the overall size of NTIC' s net sales to joint ventures, the timing of one or more orders can materially affect NTIC' s quarterly sales to joint ventures and the comparisons to prior year quarters. In addition, because of the typical size of individual orders and the overall size of NTIC' s net sales derived from sales of Natur- Tec ® products, the timing of one or more orders can materially affect NTIC' s quarterly sales of Natur- Tec ® products and the comparisons to prior year quarters. Furthermore, since ZERUST ® products for the oil and gas industry typically carry higher margins than other traditional ZERUST ® products, the amount of sales of ZERUST ® products for the oil and gas industry typically affects NTIC' s overall margins. Such variability in operating results makes the prediction of NTIC' s net sales, earnings, and other operating results for each quarter difficult and increases the risk of unanticipated variations in quarterly operating results. NTIC' s quarterly results have been and, in the future, may be below the expectations of public market analysts and investors. NTIC' s business is subject to a number of other miscellaneous risks that may adversely affect NTIC’ s operating results, financial condition, or business. NTIC’ s business is subject to a number of other miscellaneous risks that may adversely affect NTIC’ s operating results, and financial condition, such as natural or man- made disasters, an unexpected business loss of supply due to a force majeure event or global pandemics that may result in shortages of raw materials, higher commodity costs, an increase in insurance premiums, and other adverse effects on NTIC’ s business; the continued threat of terrorist acts and war that may result in heightened security and higher costs for import and export shipments of components or finished goods; and the ability of NTIC’ s management to adapt to unplanned events.