Cultivating Sustainable Solutions

2021 SUSTAINABILITY REPORT
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>About Stepan</td>
<td>5</td>
</tr>
<tr>
<td>Responsible Practices</td>
<td>14</td>
</tr>
<tr>
<td>Environment, Resources, and Climate Impact</td>
<td>21</td>
</tr>
<tr>
<td>Advantageous Products</td>
<td>25</td>
</tr>
<tr>
<td>Valuing People and Communities</td>
<td>30</td>
</tr>
<tr>
<td>Appendix</td>
<td>35</td>
</tr>
</tbody>
</table>

On the cover: Jordan Craft, Research Biologist (left) and Antony Williams, Senior R&D Shipping Coordinator (right), Winder, Georgia
A Message From the CEO

At Stepan Company, we continue to build upon our sustainability principles of People, Planet, Products, and Practices in alignment with our values and a commitment to our employees and stakeholders around the world. Our vision to deliver products that enable a safer, cleaner, and more energy efficient world remains our guiding principle as we advance our sustainability journey.

I am proud to work with a global team whose resilience and agility have been key to serving our customers while we cultivate a cleaner and better future. Our People are core to our Company’s success and was exemplified once again in 2021 as our team remained committed to delivering products used in the fight against COVID-19, while overcoming unprecedented supply chain and weather challenges. At Stepan, we strive for an engaged and inclusive workforce that shares successes and works to inspire one another to achieve higher levels of performance. We acted on our People First value, making investments in an enhanced training program promoting employee empowerment, and we launched Leading at Stepan that focuses on developing leadership in front-line and operational roles. We also place great emphasis on employee development and well-being, which we believe fosters our energized and engaged workforce.

Measurement of our goals and commitments allows us to take action with meaningful and positive impacts for the Planet. Stepan recognizes the growing urgency to manage environmental impacts, and our investments focused on enhanced data collection and metrics help inform, support, and improve the mitigation of operational and process risks. We continue to make steady progress on our sustainability goals, achieving approximately a 20% reduction in greenhouse gas emissions and 30% reduction in water usage across our 2016 baseline sites.

In the markets we serve, Stepan Products promote improved health and hygiene, agricultural productivity, energy conservation, and efficient resource use. Growth and innovation investment remains focused on deepening our portfolio of more sustainable products and technologies and helps support our global climate goals. In addition, biofermentation-based surfactant offerings and developing a more circular and renewable-based polyester polyol portfolio for our insulation customers remain at the forefront of our product journey.

Adherence to Practices and policies that support progress across environmental, social and governance (ESG) topics underpin all that we do. Stepan remains a proud supporter of the United Nations Global Compact (UNGC) and its ten principles. We work to advance the UN Sustainable Development Goals with our products and our commitments to ethical and responsible business practices, and we continue to align our efforts with globally recognized ESG reporting and transparency frameworks. This year, we also begin formal support of the Task Force for Climate Related Financial Disclosures (TCFD). This effort will help guide the integration of climate risk and opportunity into our business strategies and overall enterprise risk management process.

Stepan also works to be a valued community partner through the safe and responsible management of our operations, economic benefits from high-skill job opportunities, and ongoing community engagement. Volunteer work, mentoring programs, and community grants are some of the ways we directly connect with and support our communities. Evolving global sustainability needs and demands will shape 2022, and our passionate and committed employee base, along with a growing network of Stepan partners, will help drive the progress and advancement of our ESG ambition to deliver sustainable growth now and into the future.

Sincerely,

Scott R. Behrens
President and Chief Executive Officer
Better Data for Informed Planning
Stepan Management System (STEMS) roll-out continued to progress, with the goal of improving our ability to collect, manage, and utilize data for ESG planning and strategy.

Material ESG Topics
Stepan conducted a Materiality Assessment to update our strategic approach to addressing ESG challenges and opportunities, and to help us to further inform our external reporting and disclosure process.

A Growth Mindset
Acquisitions of three new manufacturing facilities were completed, allowing Stepan to grow capabilities in fermentation technology and rigid-foam insulation.

Design for Sustainable Collaboration
Our new Agricultural Innovation Center in Winder, Georgia (pictured above), and our new headquarters in Northbrook, Illinois, are both LEED Silver certified.

Products With ESG Focus
Stepan continued to expand our portfolio of products that deliver benefit toward global ESG priorities such as energy efficiency, carbon impact reduction, safer ingredient alternatives and circularity.

Partner for Sustainable Supply
Stepan’s Procurement team initiated work with our suppliers to build alignment on ESG criteria through our “Partner for Sustainable Supply” (PsSS) program.

Continued Improvement for ESG
We received a Gold Ranking from the EcoVadis ESG ranking platform, placing Stepan in the top 6% of assessed chemical industry manufacturers.

Water Risk Mitigation
We completed water risk assessments for all of our manufacturing facilities and will use this information to inform management strategies and goal setting in the coming years.
Stepan is a global manufacturer of specialty and intermediate chemicals. Our team works to enable our customers’ success with a growing portfolio of diverse chemistries that benefit the environment, promote human well-being, and address today’s challenges. We recognize the urgent need to address climate risk and are dedicated to developing solutions that help reduce greenhouse gas emissions and support efficient use of resources.

Through our work in three core business segments — Surfactants, Polymers, and Specialty Products — we are able to deliver 650+ products to over 2,300 global customers.

Stepan’s Surfactants are used in personal care, cleaning products, and disinfection as well as customized solutions for agricultural, oilfield, and construction markets. Stepan’s Polymers segment delivers products used in rigid foam insulation; coatings, adhesives, sealants, and elastomers (C.A.S.E.) applications; applications in construction markets; and components of automotive, boating, and other industrial products. In the Specialty Products segment, we are a leading producer of patented, science-based, nutritional oils used in the food, flavoring, nutritional supplement, and pharmaceutical industries.

Innovation is fundamental to Stepan’s strategy to serve our customers and maintain our market leadership. Our network of technical experts across 14 Research and Development (R&D) Centers around the world specialize in synthesis, product design and development, formulation development, and process technology and analysis. This team is key to delivering solutions for emerging issues and needs with products that are safer for people and the environment. We continue growing our portfolio of products built on biobased raw materials, products that respond to shifting public health needs, and products that are designed to promote responsible use of resources.

Our innovation work is complemented by a growth strategy that expands our manufacturing capabilities and enables more strategic and efficient delivery of our products to key markets. In 2021, Stepan acquired two new manufacturing facilities that will support growth in the rigid foam insulation markets in the United States (U.S.) and Europe. Stepan also acquired biofermentation technology and manufacturing assets to build out our market presence and develop biosurfactants that support goals related to lower toxicity levels and are readily biodegradable.

Through our work, Stepan is able to deliver 650+ products to over 2,300 customers.
At the same time that we grow our capacity to deliver key products for today’s challenges, Stepan works to drive continuous improvement in how we operate. Safety for our employees and our communities remains the top priority for the Company, as is conducting business according to the highest business standards. Our manufacturing teams look for opportunities to improve our environmental footprint and have implemented projects that conserve energy and resources. We are also proud that Stepan’s new Company Headquarters in Northbrook, Illinois, and our Agricultural Innovation Center near our Winder, Georgia, facility are both certified at the LEED (Leadership in Energy and Environmental Design) Silver level.

Stepan Company has over 2,400 permanent employees across 12 countries: U.S., the Philippines, Singapore, China, Poland, United Kingdom (U.K.), Netherlands, France, Germany, Mexico, Colombia, and Brazil. With a current network of 21 production facilities, we continue to explore opportunities to expand our manufacturing capabilities and technical expertise to meet global needs.

Our products deliver benefits including energy efficiency, health and sanitation, biorenewability, and soil regeneration. As we look ahead, we will continue to explore diversification and growth opportunities that help address global environmental and societal needs, and we will do so with an unwavering commitment to operate responsibly, with integrity, and with the goal of being a preferred partner for our customers.

[1] Number of employees as reported in Stepan’s 2021 10-K. Excludes temporary workers.
Governance

Stepan is committed to maintaining the highest standards of corporate governance, ethics and integrity, compliance, and equity as outlined in our Code of Conduct. Our governance practices promote long-term value and accountability for our shareholders, customers, and other stakeholders.

Our Board of Directors has eight members, six of which are independent. Our Board membership includes directors with diverse experiences, qualifications, skill sets, and perspectives that, taken together, enable effective oversight of Stepan’s global operations. Board members are nominated based on considerations including their expertise, business background, industry, and other demographics. Stepan’s Board includes two women and six men.

Stepan has implemented an ESG Sub-Committee of our Executive Leadership team to direct progress on the Company’s current and emerging ESG priorities. The committee will provide oversight for the corporate ESG teams, review the progress on execution of Stepan’s ESG strategy, and report to Stepan’s Board on a quarterly basis.

Our Corporate Governance Guidelines detail the expectations and responsibilities of our Board and its four committees — Audit, Compensation and Development, Compliance, and Nominating and Corporate Governance.

To learn more about our Governance structure, procedures, and guidelines, please visit our Corporate Governance webpage in the Investors section of our website.

Our governance practices promote long-term value and accountability for our shareholders, customers, and other stakeholders.
Our ESG Responsibilities

Our Approach

Stepan works to drive continuous improvement across our areas of impact, and through the lens of ESG, is integrating practices that support this progress. This includes work to engage our suppliers on their own ESG performance; expansion into fermentation technology to support growing requirements for biobased products; projects that reduce water consumption, waste, and energy usage at our manufacturing sites; and policies that aim to protect human and labor rights across our value chain.

The Steering team, consisting of a Sustainable Growth workgroup and an Environment and Resources workgroup, is responsible for providing guidance, recommendations, and support for day-to-day sustainability efforts and obligations. The Steering team is also responsible for embedding a culture of sustainability across all Stepan business functions. Our Human Resources team takes lead responsibility for social and community engagement topics on behalf of the Company. The ESG Steering team reports to the ESG Subcommittee of the Executive Leadership team.

Stakeholder Engagement and Materiality

Stepan seeks input from our employees, customers, suppliers, investors, and local communities, and we engage with them on the issues most important to our business to inform planning and strategy and to ensure we uphold our values and commitments. We regularly engage our stakeholders through both formal and informal processes that allow us to identify and proactively address emerging ESG needs, risks, and opportunities. We frequently engage our stakeholders in a variety of ways, including:

- Employees: Engagement surveys, email, Company portal, digital signage and social media, webcasts, and ethics hotline
- Customers: Email, surveys, client panels and meetings, site visits, virtual laboratory collaborations, tradeshows and events, website and live chat, online platforms, social media, and digital portals
- Investors: Annual shareholders meeting, quarterly earnings calls, U.S. Securities and Exchange Commission filings, website, conferences, engagement via email, telephone calls, and meetings
- Suppliers: Annual and periodic meetings with key suppliers and ESG-focused assessments
- Local communities: Volunteer support, philanthropic giving, and safety awareness activities and training, including with local first responders

In 2021, we conducted an ESG materiality assessment according to Global Reporting Initiative (GRI) recommendations to identify topics at the intersection of importance to our business and our stakeholders. Our engagement process included the following actions: identifying key topics, engaging stakeholders, and prioritizing results.

The top ESG topics that were identified in the assessment include Regulatory Compliance, Product Stewardship, Climate Change, Innovation, Energy, Greenhouse Gas (GHG) Emissions, Diversity, Equity, and Inclusion, and Occupational Health and Safety.

IDENTIFYING TOPICS

- Completed peer and industry benchmarking and research to identify 27 potential ESG topics for consideration
- Received input from key internal stakeholders
- Leveraged Datamaran® Artificial Intelligence to
  - Identify external priorities
  - Analyze industry, market, and regulatory data
  - Review of emerging trends

ENGAGING STAKEHOLDERS

- Engaged with Stepan internal subject matter experts to finalize issues list and identify possible impacts, risks, and opportunities across Stepan’s value chain
- Interviewed internal and external stakeholders
- Validated results for highest priorities

PRIORITIZING RESULTS

- Assigned each issue a value, based on importance to Stepan and stakeholders, to identify the highest priority ESG topics
- Reviewed highest priority topics to understand ESG reporting priorities

Nathan Shook, Sales Director for North American Consumer Products, Northbrook, Illinois
ESG Priorities

Within each pillar we have updated our ESG priorities based on results of the 2021 materiality assessment. Topics in each pillar include those bold topics identified during our materiality assessment. Refreshed priorities allow Stepan to make further progress on our goals and to focus on key emerging issues.

Corporate Accountability and Disclosures

Stepan engages with leading corporate advocacy organizations and utilizes nationally and internationally recognized accountability frameworks and standards. Engagement and utilization includes membership commitments, certifications, reporting, and external audits that serve to guide integration of ESG best practices at site and enterprise levels. Adherence to recognized frameworks and standards also ensures that corporate disclosures meet the growing expectations of our stakeholders for accountability. Responsibility and accountability commitments include:

- American Chemistry Council Responsible Care®
- American Cleaning Institute
- CDP
- EcoVadis
- European Federation for Cosmetic Ingredients
- ISO standards
- Roundtable for Sustainable Palm Oil
- Supplier Ethical Data Exchange
- SEDEX Member Ethical Trade Audit (SMETA) standards
- Task Force for Climate-Related Financial Disclosures (TCFD)\(^1\)
- United Nations Global Compact (UNGC)

\(^1\) Stepan will commit to align with TCFD in 2022.

RESPONSIBLE PRACTICES

Demonstrating sustainable economic value, accountability, responsible management, and ethical practices

**PRIORITY ISSUES**

- Ethics and Compliance
- Occupational Health and Safety
- Process Safety
- Product Stewardship
- Regulatory Compliance

ADVANTAGEOUS PRODUCTS

Delivering innovative products from responsibly sourced materials to promote a cleaner, healthier, more energy efficient world

**PRIORITY ISSUES**

- Innovation
- Growth for Positive Impact
- Promoting a Circular Economy
- Partnerships and Collaborations

ENVIRONMENT, RESOURCES, AND CLIMATE IMPACT\(^2\)

Managing our facilities and resources responsibly to reduce our climate impact

**PRIORITY ISSUES**

- Climate Change
- Energy
- GHG Emissions
- Waste Reduction
- Water Use

INVESTING IN PEOPLE

Investing in the health, safety, professional development, and physical and mental well-being of our employees, contributing to local economies, and serving our communities

**PRIORITY ISSUES**

- Diversity, Equity, and Inclusion
- Employee Learning and Development
- Talent Attraction, Engagement, and Retention
- Community Connections

\(^2\) Pillar renamed from Efficiency For The Planet to better reflect Stepan’s priorities
# Stepan Goals for a More Sustainable Future

<table>
<thead>
<tr>
<th>ESG Priority Topic</th>
<th>Goal</th>
<th>Target Year</th>
<th>2021 Progress</th>
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</thead>
<tbody>
<tr>
<td>Responsible Practices</td>
<td>100% employee participation in annual Code of Conduct training</td>
<td>2021</td>
<td>Achieved</td>
</tr>
<tr>
<td></td>
<td>100% participation in annual Code of Conduct training</td>
<td></td>
<td>100% participation in annual Code of Conduct training</td>
</tr>
<tr>
<td>Employee Safety</td>
<td>A Total Recordable Incident Rate (TRIR) of less than 0.25 across all Stepan facilities</td>
<td>2025</td>
<td>On-track</td>
</tr>
<tr>
<td></td>
<td>Global TRIR = 0.54</td>
<td></td>
<td></td>
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<tr>
<td>Environment, Resources, and Climate Impact</td>
<td>Reduce Scope 1 and 2 greenhouse gas emissions (in metric tons) by 10% from 2016 baseline</td>
<td>2025</td>
<td>Exceeded</td>
</tr>
<tr>
<td></td>
<td>20% reduction across our 2016 baseline</td>
<td></td>
<td>20% reduction across our 2016 baseline</td>
</tr>
<tr>
<td></td>
<td>Emissions to be calculated with recently expanded manufacturing footprint as baseline for next round of emissions reduction goals</td>
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<tr>
<td>Water Conservation</td>
<td>Conduct water risk assessments for 100% of our sites and use results to develop risk management plans to strategically address key risks across our sites</td>
<td>2023</td>
<td>On-track</td>
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<tr>
<td></td>
<td>Risk assessments completed; developing site goals</td>
<td></td>
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<tr>
<td></td>
<td>Reduce global water usage by 40% from 2016 baseline</td>
<td>2025</td>
<td>On-track</td>
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<tr>
<td></td>
<td>30% reduction of water use intensity across our 2016 baseline sites</td>
<td></td>
<td></td>
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<tr>
<td>Renewable Energy</td>
<td>Source 20% of global electricity from renewable sources</td>
<td>2025</td>
<td>Exceeded</td>
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<tr>
<td></td>
<td>Renewable energy certificates (RECs) for 40% of global usage</td>
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<td></td>
<td>Stepan will define new climate impact goals based on our recently expanded manufacturing footprint and aligned with science based information</td>
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<tr>
<td>Advantageous Products</td>
<td>80% of our Research and Development investment toward sustainable processes and products</td>
<td>2023</td>
<td>On-track</td>
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<tr>
<td></td>
<td>Criteria defined and R&amp;D tool in test phase</td>
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United Nations Global Compact and Sustainable Development Goals Progress

Since 2018, Stepan has been a signatory to the United Nations Global Compact. As part of our support, we have aligned our goals and initiatives with nine United Nations Sustainable Development Goals (SDGs) to which we contribute directly:

<table>
<thead>
<tr>
<th>ESG Priority Topic</th>
<th>UNGC Principle</th>
<th>UN SDG Impact Areas</th>
<th>Goals and Initiatives</th>
<th>2021 Progress</th>
</tr>
</thead>
</table>
| Responsible Practices | 1, 2, 3, 4, 5, 6, 10 | Targets 13.1 and 13.3 | Take urgent action to combat climate change and its impacts | • 100% employee participation in annual Code of Conduct training  
• Supplier assessment for ethics and compliance related issues  
• Implementation of new supplier assessment on ESG issues  
• Promote and practice transparency via global reporting frameworks  
• External data assurance, audits, or certifications |
|  |  | Targets 16.3 and 16.5 | Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels | • 100% participation in annual Code of Conduct training, including topics related to diversity and inclusions and anti-harrassment commitments  
• 100% of suppliers evaluated on Ethics and Compliance by Stepan’s third party risk assessment platform  
• Update and launch of Stepan’s Human Rights and Diversity and Inclusion Policies  
• Sponsor of the International Women’s Forum (IWF)  
• Over 65% of invited suppliers are on-boarded and ranked by the EcoVadis ESG platform on topics including ethical governance and responsible sourcing  
• Annual ESG reporting and CDP reporting  
• Data assurance for key energy and emissions metrics |
| Environment, Resources, and Climate Impact | 7, 8, 9 | Targets 6.2 and 6.4 | Ensure access to water and sanitation for all | • Reduce GHG emissions by 10%  
• Reduce water usage by 40%  
• Waste reduction initiatives  
• 20% renewable electricity  
• Implement Stepan Management System for consistent performance metrics tracking |
|  |  | Targets 9.2, 9.4, and 9.5 | Build resilient infrastructure, promote sustainable industrialization, and foster innovation |
|  |  | Targets 12.2, 12.4, 12.5, 12.6, & 12.7 | Ensure sustainable consumption and production patterns |
|  |  | Targets 13.1 and 13.3 | Take urgent action to combat climate change and its impacts |
|  |  | Targets 16.3 and 16.5 | Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels | • Reduced Scope 1 and 2 GHG emissions by 20% for our 2016 baseline sites  
• Reduced water use intensity by 30% across our 2016 baseline sites  
• Diversion of by-products previously treated as waste to support circularity  
• RECs for 40% of global electricity usage  
• LEED Silver certification achieved for the new Stepan Headquarters in Northbrook, Illinois, and the recently opened Agricultural Innovation Center in Winder, Georgia  
• Global Stepan Management System (STEMS) roll out |
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<tr>
<th>ESG Priority Topic</th>
<th>UNGC Principle</th>
<th>UN SDG Impact Areas</th>
<th>Goals and Initiatives</th>
<th>2021 Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advantageous Products</td>
<td>8, 9</td>
<td><strong>Targets 2.3 and 2.4</strong>&lt;br&gt;End hunger, achieve food security and improved nutrition, and promote sustainable agriculture</td>
<td>• 80% R&amp;D investment in sustainable products/processes&lt;br&gt;• Growing portfolio of products supporting biorenewability, circularity, and biodegradability&lt;br&gt;• New internal tool for measuring product impact&lt;br&gt;• Fermentation and manufacturing investment for biobased products&lt;br&gt;• Expansion of products supporting regenerative agriculture&lt;br&gt;• Acquisitions supporting insulation product growth&lt;br&gt;• Products supporting COVID-19 prevention</td>
<td>• Acquisitions to grow our capabilities in polyester polyol insulation markets in Visslingen, the Netherlands, and Wilmington, North Carolina&lt;br&gt;• R&amp;D product profiling tool in test phase&lt;br&gt;• Lake Providence, Louisiana, fermentation plant acquisition&lt;br&gt;• New product offerings with high biobased content, local sourcing, or biodegradability for reduced environmental impact&lt;br&gt;• Product offerings with reduced 1,4 dioxane&lt;br&gt;• Recently opened Agricultural Innovation Center in Winder, Georgia, to support innovation, research, and collaboration to address agricultural challenges build opportunities&lt;br&gt;• More than 60 products registered on the National Organic Program’s list for organically produced agricultural products&lt;br&gt;• 37 products with approved claims to kill SARS-CoV-2</td>
</tr>
<tr>
<td>Valuing People and Communities</td>
<td>1, 2, 3, 6</td>
<td><strong>Targets 3.2 and 3.4</strong>&lt;br&gt;Ensure healthy lives and promote well-being for all at all ages</td>
<td>• Refreshed Human Rights and Diversity and Inclusion policies&lt;br&gt;• Community support grants&lt;br&gt;• Community support including STEM education and health and hygiene&lt;br&gt;• Expanded employee wellness and wellbeing&lt;br&gt;• Employee retention programs including training, development, and leadership development</td>
<td>• Comprehensive training on Inclusion and Diversity and Human Rights policies&lt;br&gt;• Annual Community Outreach Grant awarded to Clean the World®&lt;br&gt;• Community outreach programs in our manufacturing regions to promote STEM programs and training&lt;br&gt;• Implementation of training and skill development platform; ongoing and new leadership development opportunities</td>
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</tbody>
</table>
In this Sustainability Report, Stepan highlights our efforts and performance data for 2021, unless otherwise noted. This report provides an update to Stepan’s 2020 Sustainability Report, which was published in May 2021, and is prepared in accordance with both the GRI Standards: Core option, and the Sustainability Accounting Standards Board (SASB) Chemicals Standard.

Stepan invites you to read this Sustainability Report to learn about our commitments to promote ethical and responsible business practices, and social and environmental responsibility. For additional information about Stepan, please visit our website. If you have further questions or comments, please contact us at sustainability@stepan.com.
Across all our areas of business, our focus on ethical and responsible practices reflects our determination to be a valued community partner, to ensure our license to operate, and to deliver superior value to all our stakeholders. Our employees, customers, and suppliers are critical to our success, and we work to foster long-term relationships built on trust, respect, and dependability while promoting best practices across our value chain.

We are proud that, based on our most recent performance assessment, the EcoVadis ESG platform awarded Stepan a gold ranking, placing us in the top 6% among “manufacturers of other chemical products.” This gold ranking is a reflection of Stepan’s continued efforts to drive improvement across our areas of impact, including work such as:

- Updated policies related to workforce diversity, inclusion, and human rights
- Consistent implementation of and training on Stepan’s Code of Conduct
- Thoughtful employee engagement and ongoing support during the pandemic
- Actions and initiatives taken by the Stepan Environmental, Health, Safety, and Security (EHS&S) team to promote safety at our global sites
- Commitment to evaluating our suppliers’ ESG practices
We take actions to ensure safety for our Stepan team and the communities in which we operate, and our ability to conduct our business depends upon success in this area. Our goal is to be in the top quartile in our industry for employee health and safety and process safety by 2025. We are implementing management systems and best practices to drive toward this goal.

Stepan continues our practice of holding monthly comprehensive performance reviews with all sites, providing an opportunity to identify risks, implement corrective actions, and highlight best practices for adoption. Site leaders from each global manufacturing location provide their insights and guidance to site teams who are responsible for integrating learnings into local practices and processes.

As part of prioritization efforts, Stepan continued to establish a corporate risk matrix to prioritize initiatives and projects based on risk mitigation benefits. This process helps to ensure the safety of our employees, customers, partners, and the communities we serve.

We are proud of our safety efforts and our dedicated culture of safety. In 2021, 48% of our sites received Stepan’s President’s Safety Award. The award is Stepan’s highest safety honor and is given to our facilities that meet strict criteria related to recordable injuries, incidents, and other safety and compliance requirements.

To enable more effective processes and standards, as well as stronger tracking and monitoring of performance across numerous metrics, we continued the multi-year, global roll out of our Stepan Management System (STEMS). STEMS includes a digital platform that helps ensure we collect and report data in a more standardized way and allows us to better assess global opportunities for continuous improvement.

All Stepan facilities continue to be ISO 9001:2015 certified, and we conform to the ACC Responsible Care Management System® (RCMS) at our U.S. sites. Three of our sites, in Winder, Georgia, Elwood, Illinois (Millsdale), and Anaheim, California, carried the U.S. Occupational Safety and Health Authority (OSHA) Voluntary Protection Program (VPP) Star designation — the highest level for its VPP. At our facilities outside the U.S., we encourage participation in country-specific Responsible Care® program equivalents, and four sites are ISO 14001 Environmental Management certified, two ISO 45001 Occupational Health and Safety certified, and one ISO 50001 Energy Management certified.
Process Safety

In order to ensure the safety of our workforce and the communities where we operate, Stepan focuses on process safety across our regions, including managing and overseeing the safety and integrity of our processes, mitigating and managing risks, and committing to best practices through effective management systems and implementation of standards, procedures, trainings, and assurances. As part of our ongoing efforts to protect employees, we became a member of the American Institute of Chemical Engineers’ Center for Chemical Process Safety (CCPS). Membership allows us to continually update Stepan process safety strategy based on their leading framework approach known as Risk Based Process Safety.

We are proud that Stepan’s Stalybridge, U.K., site received the Company of the Year Award and the Special Responsible Care Award for Process Safety Leadership through the Chemical Industries Association (CIA) 2021 Chemical Industry Awards. The Company of the Year Award is given to a CIA member that demonstrates sustained contribution to the U.K. economy as well as exceptional performance in other key areas, including a Health Leadership Award, for which the site was short-listed. The U.K. team’s receipt of the Special Responsible Care Award for Process Safety Leadership serves as validation of our commitment to excellence in this area and Stepan’s ongoing work to prioritize process safety.

Other noteworthy accomplishments for process safety include the successful walk-the-line program at our Winder, Georgia, facility, which reduced loss of primary containment incidents and continued improvements with overfill protection of tanks, processes, and loading stations. Stepan’s Ecatepec team implemented changes to the base storage process that will help reduce risk, increase productivity, and improve safety. Through these and other changes our teams work to drive ongoing process safety improvements.

For more detailed information on Stepan’s approach to employee health, safety, and well-being, please see the Valuing People and Communities Chapter of this report.
Cybersecurity and Personal Data Protection

Stepan works to maintain our high standards for cybersecurity and protection of personal data of employees, customers, suppliers, and other third parties doing business with Stepan. Grounded in ethics and integrity, we also leverage our privacy efforts to safeguard and protect our brand.

As part of our data protection efforts, we have policies and procedures in place designed to keep private and confidential data secure, whether it belongs to our third party partners, our employees or the Company. We believe that privacy protection is not only excellent business practice, it also helps to cultivate trust with our customers, investors, and employees. We work to stay up to date on the most recent advancements in risk mitigation, and we present regular cybersecurity updates to the Audit Committee of Stepan’s Board of Directors.

Stepan has systems in place to detect and respond to data security incidents, and all Stepan employees are expected to play their part in maintaining general information security and privacy as they handle corporate and customer information in their job functions. Enterprise-wide training is paramount to reducing risk and promoting a secure brand that is serious about protecting customer, employee, and Company information. All employees and contractors with access to Stepan’s information are required to complete annual training, which is updated as new technology, security, and privacy issues emerge. Awareness campaigns throughout the year focus on topics such as phishing, anti-tampering, data classification, password protection, and ensuring a secure workspace. Training and awareness activities serve not only to educate employees about how to protect Stepan’s information assets, but also to give employees the tools they need to protect themselves in the digital world.

At the core of our global commitment to data protection is our Privacy Policy, which outlines how we collect, use, share, and safeguard information. We strive to collect and process only the data that is necessary and have established physical, electronic, and managerial safeguards to protect this information. These safeguards are regularly reviewed to protect against unauthorized access, disclosure, and improper use of customer information and to maintain the accuracy and integrity of that data. We also outline how we protect data privacy and confidential information in our Code of Conduct and our Third Party Code of Conduct. Please visit our Privacy Notice webpage for details on our process for data collection, sharing, use, and protection.

We have developed a Global Data Privacy program to comply with all applicable laws and regulations in the geographies in which we operate, and we adhere to applicable data privacy laws, including the European Union General Data Protection Regulation (EU GDPR). We also utilize the National Institute of Standards and Technology (NIST) Cybersecurity Framework to guide our cybersecurity program.

As Stepan has increased remote-work technology across our global sites in the past few years, our Information Technology team has been improving Company systems to enhance business continuity and disaster recovery capabilities. The team continues to evaluate options to further strengthen Stepan’s ability to maintain operations in the event of extreme or unanticipated circumstances. Additionally, ongoing work aims to increase information security with numerous layers of monitoring and protection to block viruses, malware, phishing attempts, and other malicious activities with the potential to disrupt business.
Our robust ethics and compliance program is a critical aspect of how we conduct business, and we hold ourselves to the highest standards of business integrity. We have spent the past several years updating and harmonizing our ethics and compliance procedures and processes. We take pride in our efforts to ensure everyone in the Company receives and completes critical trainings on these issues. For the second consecutive year, we achieved 100% employee completion for our Code of Conduct (the Code) training and an average of 99.5% completion on our quarterly compliance trainings.

The Code outlines standards and expectations for ethical workplace behaviors across our business. In addition, the Code provides guidance and resources to our employees, executive leadership, and the Board. The Code also includes information on the laws and policies that apply to our business. Policies outlined in the Code include: anti-harassment, cybersecurity, data privacy and confidential information, anti-bribery and anti-corruption, anti-money laundering, third-party relationships, conflicts of interest, fair competition and antitrust compliance, gifts and entertainment, and insider trading.

We encourage all of our stakeholders to report their concerns, whether they suspect a Code violation or just have a question about a situation in which they are involved. We comply with all applicable local, state, and federal laws and regulations in this area, and we promote practices and policies that encourage reporting instances of non-compliance and implementing corrective actions that prevent recurrence. Stepan provides multiple channels in which to speak up, including communicating to a supervisor or through our 24-hour EthicsPoint® hotline available in 39 languages via web or phone; anonymous reporting is an option wherever permitted by law.

For the second consecutive year, we achieved 100% employee completion for our Code of Conduct training and an average of 99.5% completion on our quarterly compliance trainings.

Stepan’s leadership is committed to utilizing Enterprise Risk Management (ERM) principles to aid in the identification and avoidance or mitigation of important risk factors. Stepan’s ERM program utilizes a modified COSO (Committee of Sponsoring Organizations of the Treadway Commission) based architecture and includes a robust annual enterprise risk assessment and ongoing emerging risk detection. In addition to identifying critical risks, this assessment process identifies underlying themes, such as Climate Risk, that could have a significant disruptive impact on future operations. Stepan’s Board of Directors and its management are engaged to evaluate and prioritize responses to identified enterprise risks. Stepan is committed to continuous improvement of its ERM program, which will assist in the appropriate alignment of ESG initiatives to support enterprise objectives.
Regulatory Compliance

Stepan continues to provide global cleaning and hygiene products to help mitigate the transmission of COVID-19. We currently offer 37 end-use products (EUP) on the U.S. Environmental Protection Agency’s (EPA) list of disinfectants (List N) that the EPA expects to kill SARS-CoV-2, the virus that causes COVID-19, on hard, non-porous surfaces. Of these 37 EUPs, 25 have on-label SARS-CoV-2 claims due to their demonstrated efficacy against SARS-CoV-2. Up to two additional EUPs are planned for submission to the EPA once additional testing is completed. Also, six EUPs have recently been approved to shorten the original contact time for SARS-CoV-2. In Canada, four product registrations have been approved and one is pending approval for SARS-CoV-2 claims.

We pride ourselves on the efficacy of our EPA-listed products that allow customers to make statements regarding effectiveness against SARS-CoV-2. For more information on how Stepan supports the fight against COVID-19, please visit our website.

To ensure global compliance of Stepan products, our Product Safety and Compliance team works closely with our Research and Development team. We conduct product risk assessments, which help the team identify products with the best sustainability profile. We have also expanded our regulatory intelligence through better internal tools, including rebuilding our regulatory intranet site to facilitate knowledge sharing and collaboration with key stakeholders. Product Safety and Compliance is collaborating to develop a robust in silico modeling tool, which will help to screen new products and molecules for product safety and sustainability. In addition, we have refined our processes for internal Toxic Substances Control Act (TSCA) compliance audits and successfully trialled this process, with plans for further implementation in 2022.

To help ensure that finished consumer products are able to meet new 1,4-dioxane regulations in New York state, Stepan is investing in process equipment to manufacture anionic surfactants with reduced 1,4-dioxane levels. Stepan also promotes other surfactants as alternatives and is developing low-dioxane consumer product formulation prototypes to assist our customers.

In Europe, Brexit drove a significant number of regulatory actions, and Stepan has worked to ensure continued business across our European markets. We created a new service to facilitate effective management of regulatory requirements and to help avoid disruption in delivery of our products to Stepan customers. Our products are in compliance with U.K. REACH and EU-27 REACH, and all of the related substances are registered through the grandfathering process.

Product Stewardship

Stepan works to ensure our products meet or exceed safety standards aimed at protecting people and the environment. We manage the environmental, social, health, and safety impacts of our product portfolio through compliance with applicable laws and regulations, careful review of raw material and finished product characteristics, and globally aligned communications to promote transparency and safe handling and use. Through our membership to the American Chemistry Council (ACC), the European Chemical Industry Council (CEFIC) and related bodies, Stepan aligns with the Global Product Strategy, supporting efforts to make product stewardship information readily available to the public. Stepan provides Product Stewardship summaries for our chemicals that are identified as being high priority, representing about 5% of our manufactured substances.

We also communicate according to the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals, to ensure key safety information is available through all stages of material handling and transport. With human and environmental safety as a top priority, Stepan looks for ongoing opportunities to go beyond regulatory compliance through different certification frameworks that help us promote product stewardship and transparency.

Industry Associations and Policy Groups

Stepan actively engages with policymakers, industry peers, and trade associations to find solutions that support Stepan’s business interests, provide more value to stakeholders, and create desirable outcomes. To better position Stepan to address pending and anticipated regulatory changes, our team members continued to engage and educate themselves on critical topics for the chemical industry including 1,4-dioxane, revision of the OSHA HazCom Standard 2012, REACH developments related to microplastics, and the EU roadmap on Chemicals Strategy for Sustainability (CSS).
Within Stepan’s Responsible Sourcing Policy, we outline criteria specific to our palm oil and derivative suppliers, including criteria related to ending deforestation, preventing development on peatlands, and protecting human and labor rights. To help us mitigate potential third-party risks in our supply chain, our Third Party Code of Conduct clearly communicates the expectations for ethical business that we practice and expect our supply chain partners to uphold.

In support of our efforts to drive best practices across our supply chain, we screen every new third-party organization with which we have a significant interaction. By year end, this totaled more than 19,700 companies screened. Use of the tool allows us to evaluate our business partners on ethics and compliance criteria in an effort to mitigate potential risks. In addition to screenings, we regularly review and update our third-party policies and procedures to ensure we are following the best practices in our industry.

Stepan remains committed to upholding human rights across our regions of operation and throughout our value chain. We outline this commitment in our Human Rights Policy, as well as our Code of Conduct and Third Party Code of Conduct. Our Code of Conduct and Third Party Code of Conduct include expectations for freedom of association and collective bargaining, reasonable working conditions and working hours, and zero tolerance for retaliation, forced labor, child labor, human trafficking, recruitment fees, coercion, discrimination, and harassment. We expect all Stepan supplier partners to uphold our same high standards.

We are a signatory to the United Nations Global Compact and we are committed to respecting and supporting the principles within the UN Universal Declaration of Human Rights and the International Labor Organization (ILO) 1998 Declaration on Fundamental Principles and Rights at Work through our engagement with employees, customers, suppliers, and communities. For more information on how Stepan partners for a positive impact, see the Partnerships and Collaborations section in the Advantageous Products Chapter of this report.

Within Stepan’s Responsible Sourcing Policy, we outline criteria specific to our palm material suppliers, including criteria related to ending deforestation, preventing development on peatlands, and protecting human and labor rights. Through our membership in the Roundtable for Sustainable Palm Oil (RSPO), our RSPO supply chain certifications, and our commitments to support traceability goals, Stepan looks to partner with our customers and suppliers to overcome challenges and help promote best practices related to palm oil.

In 2021, Stepan launched a new supplier engagement program, Partner for Sustainable Supply (PaSS), to an initial group of over 200 suppliers. We will utilize EcoVadis, a globally recognized platform that evaluates environmental, social, and governance (ESG) performance, to partner with our suppliers with the aim of promoting continuous improvement in our supply chain. Our expectation is to expand the program across other critical spend areas over the coming years.

Our sustainable procurement vision is to partner with selected suppliers of goods and services across the markets we serve to harmonize ESG performance management and to engage in a sustainable business development journey that encompasses environment, labor and human rights, ethics, and their own sustainable procurement.

We strive to make sustainability the cornerstone of our relationship with suppliers, helping to ensure that our business partners reflect Stepan values and standards and enable us to operate Stepan’s business ethically, with responsibly sourced goods and services.

Stepan’s new supplier engagement program, Partner for Sustainable Supply (PaSS), utilizes EcoVadis to partner with our suppliers to promote continuous improvement in our supply chain.
Environment, Resources, and Climate Impact

Stepan works to continuously improve in the areas of environmental responsibility and resource management. Led by our values of Integrity and Continuous Improvement, our everyday actions inform our commitment to operational efficiency and managing climate. We also continue to explore opportunities to increase efficiency through more effective monitoring and management. Through this work, we aim to reduce emissions, promote efficient use of resources, and reduce generation of waste. Across our operations, we are working to embed sustainability criteria into key processes to inform evaluation of new initiatives and strengthen our ability to reduce our environmental footprint.

We continued to roll out the Stepan Management Systems (STEMS), further strengthening efforts to capture and report more comprehensive and accurate site data related to safety and environmental compliance. STEMS also enables centralized management and greater transparency of data and allows for the continuous identification of improvement opportunities related to resource efficiency, process optimization, improved maintenance, and multi-year capital projects.

Across our operations, we are working to embed sustainability criteria into key processes to inform evaluation of new initiatives and strengthen our ability to reduce our environmental footprint.
Climate Change and Environmental Impacts

Climate Change
Climate impact is a key challenge for Stepan and our external stakeholders. As we continue to increase our focus on climate impacts and energy efficiency, Stepan will build on our Enterprise Risk Management process to understand climate risks to our business. Stepan is committing to the Task Force for Climate-Related Financial Disclosures (TCFD) recommendations for evaluating, disclosing, and managing climate-related risk through progressive action. Outputs from scenario analyses and a broad understanding of our emissions impact will inform our business strategy and long-term emissions reduction goals.

Greenhouse Gas Emissions
Stepan remains committed to managing and reducing our greenhouse gas (GHG) emissions. Various Stepan sites have conducted utility leak surveys, implemented equipment repairs, and improved maintenance practices. Two sites have purchased renewable energy certificates to cover electricity consumption. These and other projects enabled Stepan to achieve a reduction in GHG emissions of 20% at our 2016 baseline sites, exceeding our goal for emissions reduction at these locations. With Stepan’s recent acquisitions, our aim is to recalculate global emissions across our expanded manufacturing footprint for use as a new baseline for a refreshed set of targets. We also understand the importance of our raw material sourcing decisions for helping to drive emissions reduction. While our initial emissions reduction target is focused only on our Scope 1 and 2 emissions, we will work to align with scientific consensus with new goals that include consideration of our Scope 3 emissions. Such targets are essential for alignment with TCFD reporting guidelines and are key to our commitment to reduce our climate impact.

Each year, we report Scope 1 and 2 emissions to the American Chemistry Council (ACC) Responsible Care® and the CDP. Our energy and emissions data are also externally verified. Please see our assurance statement for more information on our emissions.

Stepan continues to seek opportunities to reduce other air emissions that contribute to our climate impact. At our Millsdale site, we anticipate reducing NOx emissions by about 6% and volatile organic compound (VOC) emissions by about 3% through replacement of a burner and wastewater tank, which are scheduled to be in operation in 2022.

Our sustainability efforts enabled Stepan to achieve a reduction in GHG emissions of 20% at our 2016 baseline sites, exceeding our goal for emissions reduction at these locations.
Energy

Stepan works to reduce energy consumption and costs while also increasing the share of renewables in our energy portfolio. In 2021, Stepan sourced about 40% of global electricity from verified renewable sources with renewable energy certificates (RECs). This achievement puts us well above our goal to source 20% of global electricity from renewable sources by 2025.

Projects including our LEED-certified Agricultural Innovation Center adjacent to our Winder, Georgia, facility, allow us to continue transitioning operations to renewable sources. The Innovation Center’s solar installation generates 10% of total building energy. In addition, Stepan’s largest manufacturing location in Elwood (Millsdale), Illinois, and our Manizales, Colombia, plants source 100% of electricity from renewables utilizing RECs.

To support continued identification of energy efficiency projects, enhanced communication of ESG priorities, and shared best practices, Stepan established a North American Energy and Sustainability Council in 2020 with representatives from EHS&S and Supply Chain functions. Council efforts included:

- Detailed energy assessments at three sites to identify energy savings projects for inclusion in our Sustainability Project Portfolio
- Utility leak and steam trap surveys at four sites and implemented reliability programs to maintain progress
- Tools enabling consistent tracking of energy usage across sites and improved metering at the sites to obtain real-time data
- Quarterly energy initiatives including plant communications and development of energy efficiency guidelines for design and installation of new equipment
- Sustainability integrated into our capital planning process as well as our Front-End Engineering design process to ensure considerations are taken to meet our sustainability goals

Based on the results of the site surveys, Stepan’s U.S. facilities identified numerous cost-savings and efficiency improvement opportunities. This led to repairs at key facilities with resulting decrease in energy and fuel consumption.

Water Use

Stepan believes in managing water resources in a way that respects the communities in which we operate and ensures that water resources remain abundant for future generations. Across our regions, we look for opportunities to implement efficiency measures to reduce water consumption. In water-stressed areas where Stepan operates, we strictly manage water consumption and utilize initiatives such as repurposing wastewater. To raise awareness, we have spent the last few years working to better understand water risks and opportunities in an effort to further reduce our global water footprint. The global roll-out of STEMS has been instrumental in standardizing management processes and procedures that we leverage to collect necessary data for careful monitoring and identification of additional reduction opportunities across Stepan.

We have made significant progress toward our water goals. We achieved our goal of conducting water risk assessments at all sites two years early. Building on our assessment efforts, we then risk-ranked all sites based on a water risk database and site-specific surveys. This work puts us on track to achieve our goal of developing water management plans for all sites by 2023. We also continue to work toward our goal of a 40% reduction in water usage by 2025. We have reduced water use intensity by 30% across our 2016 baseline sites.

To address high water consumption, several Stepan sites have demonstrated water use reductions, notably our Maywood, New Jersey, team that has achieved a 75% reduction in water usage through installation of a cooling tower and other initiatives to support our Natural Products area of the plant.
Waste Reduction

Stepan looks for opportunities to reuse and repurpose materials based on our processes, by-products generated, and local industry partnerships. Through this work, we support a transition to a circular economy. Stepan’s Manizales team initiated projects in 2020 that are now supporting a reduction in hazardous waste by about 60% through material recovery and reuse. Stepan’s Millsdale facility has identified partners who can utilize our recovered methanol as a feedstock in their processing, eliminating the need for waste treatment and disposal of this material. In 2022, we will work to evaluate waste streams across our sites and look for additional opportunities to keep Stepan by-products in use and reduce manufacturing process waste.

We also encourage all employees to reduce waste every day. During our recent move to the new Stepan headquarters in Northbrook, Illinois, Stepan’s library team recycled roughly two tons of paper. In addition, with a strong focus on reusing, recycling, and repurposing office furniture, materials, and supplies collected during the move, 350 metric tons of material were diverted from landfill, with recycling and reuse of nearly 88% of all demolition "waste."

Stepan continues to identify and implement waste reduction opportunities across our sites as part of our effort to support more circular manufacturing processes. For more information on our commitment to circularity, see our Promoting a Circular Economy section in the Advantageous Products Chapter of this report.
Advantageous Products

Across markets where we are active, our products drive progress on Stepan’s global goals. Diverse stakeholder groups are communicating with increased urgency the need to address issues such as greenhouse gas emissions, food security, health and sanitation, and circularity, and through Stepan products and technologies, we are positioned to deliver.

Stepan’s strategic investments to acquire fermentation technology and manufacturing capabilities support growth in markets focused on products derived from biological processes. Our newest aromatic polyester polyol manufacturing sites support increased production capacity for key components of insulation materials that help the world meet tighter standards for building energy efficiency. Through targeted growth into new technologies and markets and with purposeful evaluation of raw material supply chains, Stepan focuses innovation efforts on current and emerging market needs.

Through targeted growth into new technologies and markets, and with purposeful evaluation of raw material supply chains, Stepan focuses innovation efforts on current and emerging market needs.

Photo to left: Alhad Phatak, Product Development Manager (left) and Dawn Friesen, Senior Research Chemist (right), Houston, Texas
Designing Products for ESG Benefit

Stepan products enter a highly diverse set of markets, and across each, we look for opportunities to address key global ESG priorities. In addition to delivering products that support the United Nations Sustainable Development Goals (SDGs), we consider product impact areas including the raw materials and technologies we use to manufacture goods, opportunities for diverting waste streams, and designing for lower impact. For example, Stepan delivers concentrated, solid, flake, and powder technologies, including our liquid and powder fabric softener concentrates, which offer opportunities for significant water savings and energy efficiency during product transport. Taking a holistic product view allows Stepan to address multiple sustainability challenges while also promoting a circular economy.

As part of our commitment to develop sustainably advantaged products, we set a goal of 80% R&D investment in sustainable products and processes by 2023. In support of our goal, Stepan conducted an internal analysis of products, which indicated that at least 75% of our products have a strong alignment with four SDGs: Zero Hunger, Good Health and Well-Being, Clean Water and Sanitation, or Climate Action.

In 2021, we began integrating ESG criteria into key processes and tools to allow for more rigorous evaluation of products. In 2022, our R&D team will begin testing a tool that compiles product and raw material information to help inform key internal decisions and for the messaging of impact information to external stakeholders. R&D teams are also formalizing a road mapping process to vet and prioritize projects with key sustainability impact components. Additionally, members of Stepan’s Process Technology Development group are working with R&D team members to develop capabilities for life cycle modeling and assessments to support customer data needs. In addition to internal efforts, Stepan R&D teams work closely with customers with a goal of designing products that meet or exceed performance expectations and help meet ESG goals. As technologies shift, Stepan is evaluating opportunities related to the sourcing and development of alternative carbon-based feedstocks for products, with the aim of driving reductions in the overall carbon footprint of our products.

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We are excited about opportunities to support the regeneration of degraded soils, enhanced crop productivity, and increased food security with Stepan products. Our teams also look for impactful partnerships to drive progress on challenging issues related to end of life recyclability, elimination of waste streams, reduced packaging, improved energy efficiency, and other efforts to advance a circular economy. We aim to grow our portfolio of sustainably focused products and reduce our global footprint through design of forward-looking products for our customers.

To improve the sustainability footprint of our testing and technology implementation processes, Stepan’s Corporate Analytical team is responsible for exploring and vetting new methodologies. While the team is focused on improving the efficiency of processes, their work has also led to improved safety and environmental profiles. As an example, they found that using a secondary analysis technique, such as Near Infrared Spectroscopy (NIR), eliminates the need for certain primary analysis methods, such as Hydroxyl Value, that use hazardous solvents, strong bases, and take three hours to complete. In contrast, NIR takes a matter of minutes and measures small quantities of a sample without the use of reagents.

To further address the impacts of our products, the Analytical team utilizes the American Chemical Society’s Green Chemistry Principles to explore innovative ways to prevent waste, use less hazardous chemicals, and increase energy efficiency.

In response to the ongoing pandemic and as part of our work to design products with ESG benefits, Stepan continues to focus on delivering ingredients essential to fight the evolving COVID-19 virus. To date, Stepan has produced 37 end-use disinfectant formulations considered effective by the U.S. EPA against SARS-CoV-2, the virus causing COVID-19. For more information on COVID-19 products, see the Regulatory Compliance section in the Responsible Practices Chapter of this report.
At Stepan, we focus on developing essential solutions for our customers around the world. Growth, Innovation, and Sustainability is one of Stepan’s core values, and innovation is a key way for Stepan to meet customer needs, as well as our own ESG and growth goals. We utilize emerging technologies and capabilities to drive ESG performance and resource efficiency, while delivering the high-quality products for which we are known.

Our product portfolio boasts a strong sustainability profile, including products that are made of bio-renewable materials and/or are highly biodegradable. Other product attributes include improved insulating value to reduce energy use and improved cold storage to reduce spoilage, as well as chemistries that enable light weighting of materials to reduce fuel usage during transport.

**Innovating for Positive Impact**

Stepan’s innovation focus is to differentiate ourselves with sustainably advantaged products that provide exceptional performance across the markets we serve.

We are proud to share that Stepan received the Frost & Sullivan Company of the Year Award for sustainable ingredients in hair conditioning in 2021 for STEPANQUAT® Soleil. This product is made from non-GMO, sunflower oil, a renewable and sustainable feedstock, locally sourced in Europe. The resulting esterquat has an improved sustainability profile compared to other traditional ingredients.

Stepan developed, for personal care use, LATHANOL® LAL Coarse/MB, a mild, sulfate-free ingredient, and STEPAN-MILD® GCC/MB, a COSMOS-approved additive. Both of these products are mass-balance certified by the Roundtable on Sustainable Palm Oil. For the laundry market, Stepan developed a more sustainable softener, our vegan softening active, made from biorenewable, regionally sourced, plant oils, that in January 2021 won a global consumer product company’s sustainability award in 2020 for Laundry & Home Care.

Stepan’s R&D team is actively pursuing development of alternative biodegradable solutions in the Home Care, Personal Care, and Agricultural markets. We strive to develop products that are better for the environment while also improving performance. Examples include STEPFAC® 8181 PT3K, a biodegradable dispersant used as an alternative to persistent polymers in agricultural suspensions, and STEPAN® 108, a biodegradable adjuvant with 100% bio-renewable content. In addition, Stepan qualified plant-based wipe fabrics for Stepan Disinfectant Wipe, one of our end-use product formulations registered with the U.S. EPA.

Our technology allows us to support agricultural practices that are more sustainable while maintaining crop productivity. Additionally, our first agricultural ingredients were certified by the Organic Materials Institute (OMRI). This certification builds on our portfolio of products for organic farming. Currently, we have more than 60 products registered on the National Organic Program’s list for organically produced agricultural products.

Stepan’s PETROSTEP® GCI-1 Green Corrosion Inhibitor is for use in the oil production market, and in product testing it has demonstrated good biodegradability in marine environments, while not bio-accumulating. Stepan has also developed new polymers with better environmental characteristics. In the building and construction area, our polymers have safer profiles by eliminating substances of very high concern. A new product, STEPANPOL® PS 2352-TD, was launched in 2021 to improve insulation performance at low temperatures. New Stepan polymers with lower volatile organic compounds (VOC) emissions have also been developed for Coatings, Adhesives, Sealants, Elastomers (C.A.S.E.) applications. We also developed three polyester polyol prototypes with more than 50% biobased content. These products, which demonstrate lower greenhouse gas emissions in life cycle analyses, will undergo customer trials in 2022.
Growth for Positive Impact

The opening of our new Leadership in Energy and Environmental Design (LEED) Silver-certified Agricultural Innovation Center adjacent to our Winder, Georgia, site in May 2021 has helped advance our efforts in sustainable agriculture, soil health, and food security. Using the site’s Collaboration lab, Stepan’s formulators can provide virtual demonstrations and working sessions to continue to provide our customers with high-level expertise and support in a virtual setting. Stepan’s Collaboration labs across our regions of work are essential tools to enable the close customer partnerships that we take pride in.

Stepan’s recent acquisitions have further enabled the Company to advance innovation and create a more sustainable product portfolio. In 2020, we acquired Logos Technologies LLC’s NatSurFact® business, a rhamnolipid-based line of biosurfactants derived from renewable sources. Rhamnolipids have favorable biodegradability, low toxicity, and, in some cases, unique antimicrobial properties. Stepan also acquired a fermentation plant in Lake Providence, Louisiana, in early 2021. When operational, this plant will allow us to capitalize on NatSurFact’s rhamnolipid technology and continue to commercialize next-generation surfactants.

Acquisition of INVISTA’s aromatic polyester polyol business in early 2021 further supports our energy conservation efforts, due to the potential for growth in delivery of a key component for improving insulating values.

Promoting a Circular Economy

Stepan looks to support a circular economy across our areas of impact including through process improvements, rethinking our waste streams, raw material sourcing, and, with our products. We partner with customers to develop high performing polystyrenate insulation foams, C.A.S.E. products, and one-component foam applications utilizing recycled polyethylene terephthalate (rPET). Our customer insulation solutions include those with pre- and post-consumer recycled content, which enables reduction in plastic waste. All STEPAPOL® rigid polyols in North America are UL 2809 certified® for having at least 45% post-industrial recycled content, and in 2021 we expanded the UL certification for 45% or more post-industrial recycled content to our European STEPAPOL® and TERATE® product lines. We also continue our research and development work and promotion of industrial partnerships to help advance recycling of rigid insulation foams back into polyols.

Stepan has prepared new polymer prototypes with increased biobased content for insulation applications. Several polyester polyol prototypes were developed in 2021 containing more than 50% biobased content. The products will undergo customer trials in 2022 and will support goals for reducing greenhouse gases by reducing the carbon footprint of the raw material phase.

To understand and explore opportunities for a circular economy, Stepan’s European Technical Development Specialists, along with members of the R&D and Marketing departments, are active participants in multiple industry committees within European and United Kingdom trade associations with pledges to circularity, lifecycle assessments, and end of life solutions.

See our Waste Reduction section in the Environment, Resources, and Climate Impact Chapter of this report for additional information on how Stepan is contributing to a circular economy.

Our three recent acquisitions will further enable Stepan to advance innovation and achieve our goal of creating a more sustainable product portfolio.
Stepan believes in leveraging partnerships to cultivate positive impacts. In support of our work to deliver products with lower climate impact, Stepan has partnered with Origin Materials to access future biobased raw materials via capacity reservations. Converting these materials into polyester polyols for polyisocyanurate foam insulation applications results in a significantly lower GHG footprint compared to existing raw materials.

Stepan continues our partnership with Emory University and the Resilience and Sustainability Collaboratory (RSC), with the aim of creating transformative, multi-disciplinary, research projects that spur innovative solutions for sustainability challenges worldwide. As part of this partnership, Stepan’s Chief Technology and Sustainability Officer was a guest speaker in their Climate Talk Series, and we continue to look for ways to utilize our R&D strengths and the newly opened Agricultural Innovation Center to foster the RSC’s mission.

Stepan has entered into a collaboration with two French academic partners, GEC\(^1\) and RIBP\(^2\) to develop a robust and efficacious biocontrol solution that could replace the systematic use of chemical pesticide to combat the sclerotinia disease in rapeseed. Project SHIELD\(^3\) has been awarded a three-year grant from the French National Research Agency ANR\(^4\).

We also participated in the Athens Area Sustainable Growers Field Day, hosted by the University of Georgia at its student community farm, where we highlighted ZONIX\(^5\), an OMRI listed bio-fungicide that Stepan serves as exclusive distributor for in the United States. For more information on how Stepan partners for a positive impact, see the Business and Third-Party Partnerships section in the Responsible Practices Chapter of this report.

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1. GEC Génie Enzymatique et Cellulaire. Reconnaissance Moleculaire et Bio-catalyse, UMR 7025 CNRS, UTC Compiègne, UPJV Amiens, France
2. RIBP Résistance Induite et Bio-protection des Plantes, USC INRAe 1488, LIRCA, France
3. SHIELD: Strengthening the antifungal efficiency of natural glycolipids for rapeseed protection in field
4. ANR: Agence Nationale de la Recherche, France

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Partnerships and Collaborations

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2021 HIGHLIGHTS

Opening of our LEED Silver-certified Agricultural Innovation Center to advance efforts in sustainable agriculture, soil health, and food security

Launch and distribution of ZONIX\(^5\), an OMRI-certified, biobased fungicide for disease control in a wide range of crops

Frost & Sullivan Company of the Year Award for sustainable ingredients in hair conditioning
Valuing People and Communities

Our employees are essential to our success, and their dedication and commitment to Stepan is the foundation of our work. We strive to nurture their talent through training and development programs, ensuring the highest standards of health and safety, and fostering a culture of diversity, equity, and inclusion. Our goal is to provide the individual support each employee needs to build a long, successful, and fulfilling career at Stepan.

Stepan also recognizes that we have a role to play as active corporate citizens in the communities where we operate. Stepan supports economic growth and stability through science and engineering jobs, as well as other career paths, offering competitive salary and benefits packages. We find ways to support our local communities through philanthropy, volunteerism, and partnerships with organizations that fulfill social needs. This includes working to restore ecosystems, providing support to the homeless and economically disadvantaged families, and mentoring young people in their exploration of science, technology, engineering, and math (STEM) careers.

Our Approach and Commitments

Our employees are essential to our success, and their dedication and commitment to Stepan is the foundation of our work. We strive to nurture their talent through training and development programs, ensuring the highest standards of health and safety, and fostering a culture of diversity, equity, and inclusion. Our goal is to provide the individual support each employee needs to build a long, successful, and fulfilling career at Stepan.

Stepan also recognizes that we have a role to play as active corporate citizens in the communities where we operate. Stepan supports economic growth and stability through science and engineering jobs, as well as other career paths, offering competitive salary and benefits packages. We find ways to support our local communities through philanthropy, volunteerism, and partnerships with organizations that fulfill social needs. This includes working to restore ecosystems, providing support to the homeless and economically disadvantaged families, and mentoring young people in their exploration of science, technology, engineering, and math (STEM) careers.

Over 75% of Stepan’s global employees are eligible for an annual, profit-sharing contribution, which aligns employee financial rewards with profitable Company growth.

Photo to left: Ansley Almond, Senior Biologist Technician, Winder, Georgia
To attract and retain the most talented employees possible while building the workforce of the future, Stepan offers a comprehensive total rewards package that includes compensation and benefits that are carefully selected based on local practices, employee preferences, and relevant regulations. Our rewards programs are designed to support employees beyond the workplace, including well-being and personal pursuits. As part of these efforts, over 75% of Stepan’s global employees are eligible for an annual, profit-sharing contribution, which aligns employee financial rewards with profitable Company growth.

Our total rewards program includes:

- Learning and Development
- Family and Community Support
- Recognition Program
- Insurance Coverage
- Competitive Compensation
- Retirement Savings

To help build careers at Stepan, we provide ongoing opportunities for development, and we reward outstanding performance. We offer a positive, inclusive culture and career development programs, among many other opportunities. We are also implementing more flexibility in how we work, where we work, and when we work. To ensure that we retain employees in the evolving work landscape, we offer remote-hybrid options for positions where appropriate, and we are adapting how we manage and lead remote workers based on employee feedback.

Employee Engagement

Engaging our employees remains a top priority at Stepan. We believe that building an engaged workforce is good for our employees and business. Throughout the year, we reach out to our employees through content on our intranet, staff meetings, email, and other methods of communication. We also regularly solicit feedback with an employee satisfaction survey and more frequent, shorter pulse surveys. Additionally, every three to four years, we participate in the National Safety Council’s Occupational Safety Climate Assessment Report (OSCAR), which offers employees the opportunity to provide feedback on our safety culture, leadership, and process safety management. Stepan’s leadership incorporates survey feedback into our development plans for continuous improvement.

In our annual employee engagement survey, Stepan had a 73% participation rate and scored above the industry benchmark in every dimension measured. Of those surveyed, 86% said they are extremely satisfied overall with Stepan as a place to work. Eighty-seven percent would gladly recommend Stepan as a place to work, and 88% said they are proud to work for Stepan. From the survey we identified key drivers for engagement, including Growth and Development; Manager Effectiveness; and Change Management. Stepan has adopted a standard change management framework, and we have begun to upskill our leaders in this area.

We continue to look for opportunities to improve, and using the results of the survey, we are focusing on select populations of our talent to help hone their workplace and job-specific skills.

86% of respondents to our annual employee engagement survey said they are extremely satisfied overall with Stepan as a place to work. 87% percent would gladly recommend Stepan as a place to work, and 88% said they are proud to work for Stepan.
Employee Learning and Development

We believe that strong employee development helps to achieve greater job satisfaction, career success, and growth. Stepan has created a Learning Governance Committee that will work to ensure we are meeting both the technical and functional development needs of employees, as well as the soft-skill development needs that are key to the organization going forward. This group will also drive standard governance, frameworks, and processes for Learning and Development initiatives.

Stepan’s investment in this area includes programs designed to help our employees expand and strengthen their skillsets through opportunities such as reskilling and upskilling, when necessary. We see this as valuable not only for the strength of the business, but also because we care about the growth and development of our employees.

Training and on-boarding for new hires is conducted through Success Factors, a platform launched in 2020 that has tools and resources for continuous training and development. This year, we rolled out the Success Factors training programs and performance management to all global employees, with the goal of increasing and standardizing job-specific training and knowledge. Employees are required to complete annual trainings in topics including health and safety, equity and inclusion, anti-harassment, compliance, and cybersecurity. They also have ready access to numerous training and development resources that they can utilize based on their professional goals. The Success Factors platform improves the employee experience by providing a single location for self-service access to all learning and development opportunities. It also streamlines implementation of new technology, enables access to real-time data, and improves our ability to seek trends that support workforce planning and upskilling.

Stepan works to cultivate leadership skills across Company functions and the new Leading at Stepan program focuses on developing front-line and operations roles, as well as new leaders to Stepan. Alumni of Stepan’s leadership development programs facilitate the Company’s Mentor Match program, now in its second year. The program pairs more experienced leaders in the Company with those that are newer in their leadership roles to foster further development of the skills needed for increasing responsibilities. In addition, individual Stepan sites are encouraged to identify and cultivate leadership candidates in support of site-specific needs. Through each of our leadership programs, Stepan aims to support new approaches for leading toward the future.

Employee Well-Being

The well-being of our employees is crucial to the long-term success of Stepan, and we are committed to treating their well-being as a top priority. We understand the importance of work-life balance and provide employees with the support they need to maintain their emotional and mental health. We feel that employees who are happy, healthy, and respected are better equipped to contribute at work.

Through our employee support programs and regular communication, we take a holistic approach to health and well-being that focuses on keeping employees healthy on and off the job. Company support programs and resources include smoking cessation, nutrition, exercise, and stress reduction. We recognize that by prioritizing the health and well-being of our employees, we also reduce absenteeism and enhance productivity and morale.

Since the onset of the COVID-19 pandemic, in addition to our regular benefits package, we have provided resources and benefits specifically designed to address the physical and mental health challenges brought on by the pandemic. As part of our support, we provide strategies to team managers and mental health awareness courses to our global workforce. We also continued to offer up to 80 hours of paid sick leave for any employee diagnosed with or caring for a family member diagnosed with COVID-19.

As more employees returned to work, we utilized our Return to Workplace policy and training to establish clear protocols for on-site work. In addition, Stepan continues to seek ways to foster community and connection as many employees continue to work remotely. For example, the Reactions platform, which is in its second year, provides opportunities for employees to recognize each other for their positive contributions and achievements. Town hall meetings have also been a key means for engaging employees on well-being during the pandemic. Our HR team continued to hold virtual social events throughout 2021. Virtual events successfully brought together employees across regions to reinforce a sense of belonging and well-being that is core to Stepan’s values.

Through each of our leadership programs, Stepan aims to support new approaches for leading toward the future.
Diversity, Equity, and Inclusion

Stepan is committed to fostering a diverse, equitable, and inclusive global culture that reflects the communities that we serve. In support of the unique value of each employee, our focus on Diversity, Equity, and Inclusion (DE&I) creates a safe and inclusive workplace where each employee is respected and supported.

At Stepan, we believe an inclusive and diverse workforce is essential to our success, and we understand that successful results are achieved when we empower diverse teams. Our leaders are committed to leveraging diversity of thought, experience, and perspectives to drive innovation through an empowered and diverse workforce. Stepan is a proud sponsor of the International Women's Forum (IWF). The IWF is a global organization of more than 7,000 diverse and accomplished women from 33 nations on six continents. IWF’s purpose is to advance women’s leadership and to champion equality worldwide.

Our commitment to DE&I is outlined in our Inclusion and Diversity Policy, which was updated in November 2020. We continue to focus on our goals of recruiting diverse talent, ensuring fair hiring processes, and promoting a work environment free of harassment and discrimination. We also strive to achieve equitable pay and treatment among all employees, regardless of any characteristics such as race, ethnicity, color, nationality, gender, gender identity, sexual orientation, age, language, religion, creed, social status, disability, or any other legally protected class. To ensure equitable treatment of all people, Stepan also requires our suppliers and business partners to adhere to our values and best practice.

Our annual employee engagement survey results highlighted Stepan’s commitment to creating a diverse and inclusive culture. Eighty-eight percent of respondents agreed they are treated with dignity and respect, and 86% said they are comfortable being their authentic self at work. Understanding that there is more work to do, we are committed to ensuring that every Stepan employee feels respected and included.

We are also taking a more thoughtful approach to designing our work spaces to be more accessible and inclusive. Our new headquarters is compliant with the Americans with Disabilities Act and includes dedicated spaces promoting physical and mental wellness. Additionally, the headquarters was designed to accommodate the needs of different working styles and meeting needs, with a wide selection of open collaboration spaces, private work areas, and casual gathering areas, designed to incorporate natural lighting and other features that helped it achieve LEED Silver certification.

Alla Crabtree, Senior Functional Chemist (left) and Ginger Ren, Senior Research and Development Chemist (right), Houston, Texas

**EMPLOYEE DIVERSITY**

<table>
<thead>
<tr>
<th>Employees by Gender</th>
<th>Employees by Region</th>
<th>Employees by Contract Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>76% male</td>
<td>55% U.S. and Canada</td>
<td>99% full time</td>
</tr>
<tr>
<td>24% female</td>
<td>18% EMEA</td>
<td>1% part time</td>
</tr>
<tr>
<td></td>
<td>15% Latin America</td>
<td>97% permanent</td>
</tr>
<tr>
<td></td>
<td>12% APAC</td>
<td>3% temporary</td>
</tr>
</tbody>
</table>

Valuing People and Communities

33
Community Connections

Stepan fosters connections in the communities in which we operate and we strive to be a valued community partner. Although the pandemic continued to present challenges for in-person events in 2021, Stepan found ways to give back and connect with our communities of operation through philanthropy, volunteerism, and partnerships with organizations that fulfill social needs. Additional ways we support local communities include our capital investments, employment, local procurement, corporate philanthropy, contracts with local and diverse companies, community engagement, and stakeholder partnerships that stimulate economic prosperity. We maintain our ongoing commitments to communities and continue to raise awareness of and promote safety, environmental responsibility, health and sanitation, and STEM education through community engagement.

In many of our communities of operation, including our sites in Brazil, across the U.S., our Stalybridge, U.K., facility, and our Philippines location, Stepan employees host charity events and provide food, clothing, school supplies, and other resources. Our employees support numerous opportunities for students through mentoring, college readiness, and STEM programs. Stepan’s U.K. team participates in National Apprenticeship Week and offers work experience programs and site tours to students. Our Philippines team has been supporting the Brigada Eskwela program since 1999 by providing essential supplies to local schools. Stepan’s Maywood team has participated for 15 years in a local school Science Award recognition program for outstanding academic achievement, and Stepan team members at our Company headquarters and Global Technology Center provide mentoring and experiential learning opportunities with Teach for America. Stepan sites also participate in environmental clean-up and restoration work, including 20 years of international coastal clean-up by the Philippines team.

Stepan presented our annual Community Outreach Grant Award to Clean the World® Foundation, an organization that promotes sanitation and hygiene to communities in greatest need around the world. We also continued our support of the Future of STEM Scholars Initiative (FOSSI), which provides scholarships and other opportunities to U.S. students pursuing degrees in STEM subjects at historically black colleges and universities. We are proud to work with global organizations to promote health, well-being, and science learning opportunities.
## Appendix

### Global Reporting Initiative (GRI) Index

<table>
<thead>
<tr>
<th>DISCLOSURE</th>
<th>DESCRIPTION</th>
<th>LOCATION OR DIRECT ANSWER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GRI 102: GENERAL DISCLOSURES 2016</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Organizational Profile</strong></td>
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<tr>
<td>102-1</td>
<td>Name of the organization</td>
<td>Stepan Company</td>
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<tr>
<td>102-2</td>
<td>Activities, brands, products, and services</td>
<td>About Stepan</td>
</tr>
<tr>
<td>102-3</td>
<td>Location of headquarters</td>
<td>About Stepan</td>
</tr>
<tr>
<td>102-4</td>
<td>Location of operations</td>
<td>About Stepan; Stepan Corporate Website</td>
</tr>
<tr>
<td>102-5</td>
<td>Ownership and legal form</td>
<td>Stepan 2021 Form 10-K, Item 1</td>
</tr>
<tr>
<td>102-6</td>
<td>Markets served</td>
<td>Stepan 2021 Form 10-K, Item 1; Stepan Corporate Website</td>
</tr>
<tr>
<td>102-7</td>
<td>Scale of the organization</td>
<td>About Stepan; Stepan 2021 Form 10-K, Item 1</td>
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<tr>
<td>102-8</td>
<td>Information on employees and other workers</td>
<td>Diversity, Equity, and Inclusion; Analyst Download</td>
</tr>
<tr>
<td>102-9</td>
<td>Supply Chain</td>
<td>Business and Third-Party Partnerships</td>
</tr>
</tbody>
</table>

Stepan Company is a major manufacturer of specialty and intermediate chemicals used in a broad range of industries. Stepan is a leading merchant producer of surfactants, which are the key ingredients in consumer and industrial cleaning and disinfection compounds and in agricultural and oilfield solutions. The Company is also a leading supplier of polyurethane polyols used in the expanding thermal insulation market, and CASE (Coatings, Adhesives, Sealants, and Elastomers) industries. Headquartered in Northbrook, Illinois, Stepan utilizes a network of modern production facilities located in North and South America, Europe, and Asia.
<table>
<thead>
<tr>
<th>DISCLOSURE</th>
<th>DESCRIPTION</th>
<th>LOCATION OR DIRECT ANSWER</th>
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<tbody>
<tr>
<td>102-11</td>
<td>Precautionary Principle or approach</td>
<td>Stepan Code of Conduct</td>
</tr>
<tr>
<td>102-12</td>
<td>External initiatives</td>
<td>Corporate Accountability and Disclosures; Global Reporting Initiative; Sustainability Accounting Standards Board</td>
</tr>
<tr>
<td>102-13</td>
<td>Membership of associations</td>
<td>Stepan is a voluntary member of numerous organizations including American Chemistry Council Responsible Care; American Cleaning Institute; Ethics and Compliance Initiative; Society of Corporate Compliance and Ethics; Polyisocyanurate Insulation Manufacturers Association.</td>
</tr>
</tbody>
</table>

**Strategy**

| 102-14 | Statement from senior decision-maker | Message From the CEO; Stakeholder Engagement and Materiality; ESG Priorities |
| 102-15 | Key impacts, risks, and opportunities | Stepan 2021 Form 10-K, Item 1A (Risk Factors) |

**Ethics and Integrity**

| 102-16 | Values, principles, standards, and norms of behavior | Stepan Corporate Website | About Us | Our Values |
| 102-17 | Mechanisms for advice and concerns about ethics | Corporate Accountability and Disclosures; Responsible Practices; Stepan Code of Conduct |

An anonymous reporting mechanism can be accessed online via EthicsPoint and by phone in 12 countries.

**Governance**

<p>| 102-18 | Governance structure | Governance; Stepan Corporate Website | Corporate Governance |
| 102-19 | Delegating authority | Our Approach |
| 102-20 | Executive-level responsibility for economic, environmental, and social topics | Our Approach |
| 102-22 | Composition of the highest governance body and its committees | Stepan Corporate Website | Corporate Governance |
| 102-23 | Chair of the highest governance body | Stepan Corporate Website | Board of Directors |
| 102-24 | Nominating and selecting the highest governance body | Stepan Corporate Website | Nominating and Corporate Governance Committee Charter; Stepan Corporate Website | Corporate Governance Guidelines |
| 102-25 | Conflicts of interest | Stepan Corporate Website | Corporate Governance Guidelines |</p>
<table>
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<th>DISCLOSURE</th>
<th>DESCRIPTION</th>
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<tr>
<td>102-26</td>
<td>Roles of highest governance body in setting purpose, values and strategy</td>
<td>Governance; Stepan Corporate Website</td>
</tr>
<tr>
<td>102-27</td>
<td>Collective knowledge of highest governance body</td>
<td>Our ESG Responsibilities</td>
</tr>
<tr>
<td>102-28</td>
<td>Evaluating the highest governance body’s performance</td>
<td>Stepan Corporate Website</td>
</tr>
<tr>
<td>102-29</td>
<td>Identifying and managing economic, environmental, and social impacts</td>
<td>Our ESG Responsibilities</td>
</tr>
<tr>
<td>102-30</td>
<td>Effectiveness of risk management processes</td>
<td>Ethics and Compliance; Enterprise Risk Management; Stepan Corporate Website</td>
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<tr>
<td>102-31</td>
<td>Review of economic, environmental, and social topics</td>
<td>Our ESG Responsibilities</td>
</tr>
<tr>
<td>102-32</td>
<td>Highest governance body’s role in sustainability reporting</td>
<td>Our ESG Responsibilities</td>
</tr>
<tr>
<td>102-33</td>
<td>Communicating critical concerns</td>
<td>Stepan Code of Conduct</td>
</tr>
<tr>
<td>102-35</td>
<td>Remuneration policies</td>
<td>Stepan 2022 Proxy Statement</td>
</tr>
<tr>
<td>102-36</td>
<td>Process for determining remuneration</td>
<td>Stepan 2022 Proxy Statement</td>
</tr>
<tr>
<td>102-37</td>
<td>Stakeholders’ involvement in remuneration</td>
<td>Stepan 2022 Proxy Statement</td>
</tr>
<tr>
<td>102-38</td>
<td>Annual total compensation ratio</td>
<td>Stepan 2022 Proxy Statement</td>
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**Stakeholder Engagement**

<table>
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<td>102-40</td>
<td>List of stakeholder groups</td>
<td>Stakeholder Engagement and Materiality</td>
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<tr>
<td>102-41</td>
<td>Formal collective agreements concerning working conditions</td>
<td>Analyst Download</td>
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<td></td>
<td>Collective bargaining agreements and European Works Councils</td>
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<td>102-42</td>
<td>Identifying and selecting stakeholders</td>
<td>Stakeholder Engagement and Materiality</td>
</tr>
<tr>
<td>102-43</td>
<td>Approach to stakeholder engagement</td>
<td>Stakeholder Engagement and Materiality</td>
</tr>
<tr>
<td>102-44</td>
<td>Key topics and concerns raised</td>
<td>Stakeholder Engagement and Materiality; ESG Priorities</td>
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<td>102-45</td>
<td>Entities included in the consolidated financial statements</td>
<td>Stepan 2021 Form 10-K, Item 7</td>
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<td>102-46</td>
<td>Defining report content and topic Boundaries</td>
<td>Stakeholder Engagement and Materiality; ESG Priorities; About This Report</td>
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<td>102-47</td>
<td>List of material topics</td>
<td>ESG Priorities</td>
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<td>102-48</td>
<td>Restatements of information</td>
<td>Analyst Download</td>
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<td></td>
<td>Percent of energy from grid electricity restated in 2020 to align with GRI reporting guidance.</td>
<td></td>
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<tr>
<td></td>
<td>Percent of purchased palm derived material certified under RSPO restated for 2019 and 2020 for constency in calculation methodology.</td>
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<td>102-50</td>
<td>Reporting period</td>
<td>About This Report</td>
</tr>
<tr>
<td>102-51</td>
<td>Date of most recent report</td>
<td>May 2021</td>
</tr>
<tr>
<td>102-52</td>
<td>Reporting cycle</td>
<td>About This Report</td>
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<tr>
<td>102-53</td>
<td>Contact point for questions regarding the report</td>
<td>About This Report</td>
</tr>
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<td>102-54</td>
<td>Claims of reporting in accordance with the GRI Standards</td>
<td>About This Report</td>
</tr>
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<td>102-55</td>
<td>GRI content index</td>
<td>GRI Content Index</td>
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<td>102-56</td>
<td>External assurance</td>
<td>Data assurance has been provided for Scope 1 and Scope 2 greenhouse gas emissions and for energy consumption.</td>
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<tr>
<td>DISCLOSURE</td>
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<td><strong>Economic</strong></td>
<td>GRI 205: Anti-Corruption 2016</td>
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<tr>
<td>205-1</td>
<td>Operations assessed for risks related to corruption</td>
<td>Analyst Download</td>
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<tr>
<td>205-2</td>
<td>Communication and training about anti-corruption policies and procedures</td>
<td>Ethics and Compliance; Business and Third-Party Partnerships; Analyst Download; Stepan Code of Conduct; Stepan Third Party Code of Conduct</td>
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<td>GRI 302: Energy 2016</td>
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<td>103-1</td>
<td>Explanation of the material topic and its Boundary</td>
<td>Environment, Resources and Climate Impact: Our Approach and Commitments; Climate Change</td>
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<td>103-2</td>
<td>The management approach and its components</td>
<td>Environment, Resources and Climate Impact: Our Approach and Commitments; Climate Change</td>
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<td>103-3</td>
<td>Evaluation of the management approach</td>
<td>Environment, Resources and Climate Impact: Our Approach and Commitments; Climate Change</td>
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<tr>
<td>302-1</td>
<td>Energy consumption within the organization</td>
<td>Analyst Download</td>
</tr>
<tr>
<td>302-3</td>
<td>Energy intensity</td>
<td>Analyst Download</td>
</tr>
<tr>
<td>302-4</td>
<td>Reduction of energy consumption</td>
<td>Climate Change</td>
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## GRI 303: Water and Effluents 2018

<table>
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<td>303-1</td>
<td>Interactions with water as a shared resource</td>
<td>Environment, Resources and Climate Impact: Our Approach and Commitments; Water Use</td>
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<tr>
<td>303-2</td>
<td>Management of water discharge-related impacts</td>
<td>Each site manages water usage and waste water discharges according to the regulations and limits for that site or region. Some sites have their own water treatment operations while others work with local municipalities for disposal. Water quality is monitored and treated to meet at least minimum standards for quality of effluent discharge.</td>
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<tr>
<td>303-3</td>
<td>Water withdrawal</td>
<td>Analyst Download</td>
</tr>
<tr>
<td>303-5</td>
<td>Water consumption</td>
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## GRI 305: Emissions 2016

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<td>Explanation of the material topic and its Boundary</td>
<td>Environment, Resources and Climate Impact: Our Approach and Commitments; Climate Change; Boundary: Internal, All Operations</td>
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<tr>
<td>103-2</td>
<td>The management approach and its components</td>
<td>Environment, Resources and Climate Impact: Our Approach and Commitments; Climate Change</td>
</tr>
<tr>
<td>103-3</td>
<td>Evaluation of the management approach</td>
<td>Environment, Resources and Climate Impact: Our Approach and Commitments; Climate Change</td>
</tr>
<tr>
<td>305-1</td>
<td>Direct (Scope 1) GHG emissions</td>
<td>Analyst Download</td>
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<tr>
<td>305-2</td>
<td>Energy indirect (Scope 2) GHG emissions</td>
<td>Environment, Resources and Climate Impact: Our Approach and Commitments; Climate Change; Analyst Download</td>
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<td>305-4</td>
<td>GHG emissions intensity</td>
<td>Analyst Download</td>
</tr>
<tr>
<td>305-5</td>
<td>Reduction of GHG emissions</td>
<td>Environment, Resources and Climate Impact: Our Approach and Commitments; Climate Change; Analyst Download</td>
</tr>
<tr>
<td>305-6</td>
<td>Emissions of ozone-depleting substances (ODS)</td>
<td>0.2% of Scope 1 Emissions</td>
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<td>305-7</td>
<td>Nitrogen oxides (NO\textsubscript{x}), sulfur oxides (SO\textsubscript{x}), and other significant air emissions</td>
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<td>DISCLOSURE</td>
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<td>LOCATION OR DIRECT ANSWER</td>
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<td>306-3</td>
<td>Significant spills</td>
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<tr>
<td>306-4</td>
<td>Transport of hazardous waste</td>
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</tr>
<tr>
<td>306-1</td>
<td>Waste generation and significant waste-related impacts</td>
<td>Environment, Resources and Climate Impact: Our Approach and Commitments; Waste Reduction; Analyst Download</td>
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<tr>
<td>306-2</td>
<td>Management of significant waste-related impacts</td>
<td>Environment, Resources and Climate Impact: Our Approach and Commitments; Waste Reduction; Analyst Download</td>
</tr>
<tr>
<td>306-3</td>
<td>Waste generated</td>
<td>Analyst Download</td>
</tr>
<tr>
<td>306-4</td>
<td>Waste diverted from disposal</td>
<td>Environment, Resources and Climate Impact: Our Approach and Commitments; Waste Reduction; Analyst Download</td>
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<tr>
<td>306-5</td>
<td>Waste directed to disposal</td>
<td>Analyst Download</td>
</tr>
</tbody>
</table>

| GRI 307: Environmental Compliance 2016 | | |
| 103-1 | Explanation of the material topic and its Boundary | Boundary: Internal, All Operations. The commitment to operate and produce products according to all applicable environmental laws and regulations is a fundamental requirement for earning and maintaining our license to operate globally. |
| 103-2 | The management approach and its components | Regulatory Compliance; Product Stewardship; Environment, Resources and Climate Impact: Our Approach and Commitments |
| 103-3 | Evaluation of the management approach | Stepan conducts internal audits across sites and external audits where requested or required by customer, supplier, governments, or in fulfillment of our industry memberships, as well as for maintenance of site certifications. Fines, violations, incidents, and spills are tracked at all sites and reported up to senior leadership and the Board. |
| 307-1 | Non-compliance with environmental laws and regulations | 7 environmental permit related NOVs in 2021 |

<p>| GRI 308: Supplier Environmental Assessment | | |
| 308-1 | New suppliers that were screened using environmental criteria | Responsible Practices: Our Approach and Commitments; Business and Third-Party Partnerships; Analyst Download |</p>
<table>
<thead>
<tr>
<th>DISCLOSURE</th>
<th>DESCRIPTION</th>
<th>LOCATION OR DIRECT ANSWER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**GRI 401: Employment 2016**

401-1  New employee hires and employee turnover  [Analyst Download]

401-2  Benefits provided to full-time employees that are not provided to temporary or part-time employees  [Valuing People and Communities: Our Approach and Commitments; Employee Well-Being]

**GRI 403: Occupational Health and Safety 2018**

103-1  Explanation of the material topic and its Boundary  [Responsible Practices: Our Approach and Commitments; Safety; Valuing People and Communities: Our Approach and Commitments; Boundary: Internal, All Operations]

103-2  The management approach and its components  [Responsible Practices: Our Approach and Commitments; Safety; Valuing People and Communities: Our Approach and Commitments]

103-3  Evaluation of the management approach  [Responsible Practices: Our Approach and Commitments; Safety; Valuing People and Communities: Our Approach and Commitments]

403-1  Occupational health and safety management system  [Responsible Practices: Our Approach and Commitments; Safety]

Approximately 37% of Stepan employees participate in local unions, European Works Councils, or a national chemical union. All employees are encouraged to provide feedback through numerous mechanisms, including direct communication with managers, use of the Company Ethics helpline, and participation in the National Safety Council Occupational Safety Climate Assessment Report (OSCAR) survey. The OSCAR survey is conducted every 3-4 years and is used to evaluate employee satisfaction and engagement. In addition, Stepan conducts an annual employee engagement survey with the purpose of identifying issues of concern across our sites, as well as soliciting employee feedback related to job satisfaction. Results are used to develop improvement plans.

403-2  Hazard identification, risk assessment, and incident investigation  Stepan proactively identifies potential hazards and works to mitigate safety risks across all sites. Stepan tracks and reports on incidents and near-misses across our global facilities, on an ongoing basis. Employees receive safety training and also training on reporting incidents/near-misses.

403-3  Occupational health services  Stepan implements behavior-based safety programs including training and awareness activities.

403-4  Worker participation, consultation, and communication on occupational health and safety  [Valuing People and Communities: Our Approach and Commitments]

Approximately [TBD%][1] of Stepan employees participate in local unions or European Works Councils. All employees are encouraged to provide feedback through numerous mechanisms, including direct communication with managers, use of the Company Ethics Hotline, and participation in the National Safety Council Occupational Safety Climate Assessment Report (OSCAR) survey.

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[1] Updated data will be available in early June 2022.
<table>
<thead>
<tr>
<th>DISCLOSURE</th>
<th>DESCRIPTION</th>
<th>LOCATION OR DIRECT ANSWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>403-5</td>
<td>Worker training on occupational health and safety</td>
<td>Valuing People and Communities: Our Approach and Commitments</td>
</tr>
<tr>
<td>403-6</td>
<td>Promotion of worker health</td>
<td>Valuing People and Communities: Our Approach and Commitments; Employee Well-Being</td>
</tr>
<tr>
<td>403-8</td>
<td>Workers covered by an occupational health and safety management system</td>
<td>Analyst Download</td>
</tr>
<tr>
<td>403-9</td>
<td>Work-related injuries</td>
<td>Analyst Download</td>
</tr>
<tr>
<td>403-10</td>
<td>Work-related ill health</td>
<td>Analyst Download</td>
</tr>
</tbody>
</table>

**GRI 404: Training and Education**

| 404-2      | Programs for upgrading employee skills and transition assistance programs | Valuing People and Communities: Our Approach and Commitments; Employee Training and Development |
| 404-3      | Percentage of employees receiving regular performance and career development reviews | Analyst Download |

**GRI 405: Diversity and Inclusion 2016**

| 103-1      | Explanation of the material topic and its Boundary | Valuing People and Communities: Our Approach and Commitments; Diversity, Equity, and Inclusion |
| 103-2      | The management approach and its components | Valuing People and Communities: Our Approach and Commitments; Diversity, Equity, and Inclusion |
| 103-3      | Evaluation of the management approach | Valuing People and Communities: Our Approach and Commitments; Diversity, Equity, and Inclusion |
| 405-1      | Diversity of governance bodies and employees | Valuing People and Communities: Our Approach and Commitments; Diversity, Equity, and Inclusion; Analyst Download |

**GRI 413: Local Communities 2016**

<p>| 413-1      | Operations with local community engagement, impacts assessments, and development programs | For all Stepan facilities, Stepan personnel engage to promote safety and safety awareness. Safety within the workplace is a critical first step for enabling community safety. This includes workplace safety training for employees to reduce risks, mitigate impacts of an incident, and promote the most effective response in case of an event. Sites engage with local first responders in a variety of trainings and drills to promote incident readiness and management. At some Stepan facilities, First Responders participate in Stepan’s Safe Start trainings, and in other regions trainings are organized offsite to accommodate the particular needs of — and to promote collaboration and preparedness among industrial park members. For some sites, Stepan personnel engage in community building events to promote safety awareness. These events include participation in town halls, distribution of informational pamphlets to nearby community members, or hosting events to enable community members and families to learn about Stepan operations and commitments to safety. |</p>
<table>
<thead>
<tr>
<th>DISCLOSURE</th>
<th>DESCRIPTION</th>
<th>LOCATION OR DIRECT ANSWER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GRI 414: Supplier Social Assessment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>103-1</td>
<td>Explanation of the material topic and its Boundary</td>
<td>Responsible Practices: Our Approach and Commitments; Business and Third-Party Partnerships; Boundary: External, Supply Chain</td>
</tr>
<tr>
<td>103-2</td>
<td>The management approach and its components</td>
<td>Responsible Practices: Our Approach and Commitments; Business and Third-Party Partnerships</td>
</tr>
<tr>
<td>103-3</td>
<td>Evaluation of the management approach</td>
<td>Responsible Practices: Our Approach and Commitments; Business and Third-Party Partnerships</td>
</tr>
<tr>
<td>414-1</td>
<td>New suppliers that were screened using social criteria</td>
<td>Responsible Practices: Our Approach and Commitments; Business and Third-Party Partnerships; Analyst Download</td>
</tr>
<tr>
<td><strong>GRI 416: Customer Health and Safety</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>103-1</td>
<td>Explanation of the material topic and its Boundary</td>
<td>Advantageous Products: Our Approach and Commitments; Designing Products for ESG Benefit; Boundary: Internal, All Operations; External, Customers</td>
</tr>
<tr>
<td>103-2</td>
<td>The management approach and its components</td>
<td>Advantageous Products: Our Approach and Commitments; Designing Products for ESG Benefit</td>
</tr>
<tr>
<td>103-3</td>
<td>Evaluation of the management approach</td>
<td>Advantageous Products: Our Approach and Commitments; Designing Products for ESG Benefit</td>
</tr>
<tr>
<td>416-1</td>
<td>Assessment of the health and safety impacts of product and service categories</td>
<td>Advantageous Products: Our Approach and Commitments; Designing Products for ESG Benefit; Analyst Download</td>
</tr>
<tr>
<td>416-2</td>
<td>Incidents of non-compliance concerning the health and safety impacts of products and services</td>
<td>Analyst Download</td>
</tr>
<tr>
<td><strong>GRI 417: Marketing and Labeling 2016</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>417-2</td>
<td>Incidents of non-compliance concerning product and service information and labeling</td>
<td>Analyst Download</td>
</tr>
<tr>
<td>417-3</td>
<td>Incidents of non-compliance concerning marketing communications</td>
<td>Analyst Download</td>
</tr>
</tbody>
</table>
## Sustainability Accounting Standards Board (SASB) Chemicals Index

<table>
<thead>
<tr>
<th>CODE</th>
<th>ACCOUNTING METRIC</th>
<th>LOCATION OR DIRECT ANSWER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>GHG Emissions</strong></td>
<td></td>
</tr>
<tr>
<td>RT-CH-110a.1</td>
<td>Gross global Scope 1 emissions, percentage covered under emissions-limiting regulation (Metric tons (t) CO₂e, Percentage (%))</td>
<td>Analyst Download</td>
</tr>
<tr>
<td>RT-CH-110a.2</td>
<td>Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets</td>
<td>Environment, Resources and Climate Impact: Our Approach and Commitments: Climate Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stepan conforms to the ACC Responsible Care Management System, and additionally has begun implementing a new Stepan Management System, which incorporates criteria from ISO 14001 (environmental management) and ISO 50001 (energy management). We track energy and emissions data against our baseline across our global facilities. We have defined energy use and emissions reduction targets and have implemented projects across our sites that enable energy efficiency.</td>
</tr>
<tr>
<td></td>
<td><strong>Air Quality</strong></td>
<td></td>
</tr>
<tr>
<td>RT-CH-120a.1</td>
<td>Air emissions of the following pollutants: (1) NOₓ (excluding N₂O), (2) SOₓ, (3) volatile organic compounds (VOCs), and (4) hazardous air pollutants (HAPs) (metric tons)</td>
<td>Analyst Download</td>
</tr>
<tr>
<td></td>
<td><strong>Energy Management</strong></td>
<td></td>
</tr>
<tr>
<td>RT-CH-130a.1</td>
<td>Percentage of energy that is grid electricity, renewable, and self-generated (GJ and %)</td>
<td>Analyst Download</td>
</tr>
<tr>
<td></td>
<td><strong>Water Management</strong></td>
<td></td>
</tr>
<tr>
<td>RT-CH-140a.1</td>
<td>(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress (Thousand cubic meters (m³), Percentage (%))</td>
<td>Analyst Download</td>
</tr>
<tr>
<td>RT-CH-140a.2</td>
<td>Number of incidents of non-compliance associated with water quality permits, standards, and regulations</td>
<td>Analyst Download</td>
</tr>
<tr>
<td>RT-CH-140a.3</td>
<td>Description of water management risks and discussion of strategies and practices to mitigate those risks</td>
<td>Environment, Resources and Climate Impact: Our Approach and Commitments: Water Use</td>
</tr>
<tr>
<td>CODE</td>
<td>ACCOUNTING METRIC</td>
<td>LOCATION OR DIRECT ANSWER</td>
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<tr>
<td>----------</td>
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</tr>
<tr>
<td>Hazardous Waste Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RT-CH-150a.1</td>
<td>Amount of hazardous waste generated, percentage recycled</td>
<td>Analyst Download</td>
</tr>
<tr>
<td>Community Relations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RT-CH-210a.1</td>
<td>Discussion of engagement processes to manage risks and opportunities associated with community interests</td>
<td>Environment, Resources and Climate Impact; Our Approach and Commitments; Water Use; Community Connections; 2020 Sustainability Report</td>
</tr>
<tr>
<td>Workforce Health and Safety</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RT-CH-320a.1</td>
<td>(1) Total recordable incident rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees</td>
<td>Analyst Download</td>
</tr>
<tr>
<td>RT-CH-320a.2</td>
<td>Description of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks</td>
<td>Responsible Practices: Our Approach and Commitments; Safety; All sites have a hazard communication program and personal protective equipment programs. In addition, we have done a qualitative industrial hygiene risk assessment at our global sites using a 3rd party to identify potential exposures, identify applicable occupational exposure limits and risk rank the activities. Using this evaluation, sites then perform employee exposure monitoring as required. Depending upon results of monitoring, controls are evaluated and implemented.</td>
</tr>
<tr>
<td>Product Design for Use-Phase Efficiency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RT-CH-410a.1</td>
<td>Revenue from products designed for use phase resource efficiency</td>
<td>Omission: Stepan does not currently track this metric, but plans to disclose in future reporting.</td>
</tr>
<tr>
<td>Safety and Environmental Stewardship of Chemicals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RT-CH-410b.1</td>
<td>(1) Percentage of products that contain Globally Harmonized System of Classification and Labeling of Chemicals (GHS) Category 1 and 2 Health and Environmental Hazardous Substances, (2) percentage of such products that have undergone a hazard assessment</td>
<td>Regulatory Compliance; Product Stewardship; Designing Products for ESG Benefit; Analyst Download</td>
</tr>
</tbody>
</table>

5.4% of Stepan chemicals are classified as 'high-priority' chemicals according to GHS and other national and international standards. 100% of Stepan's 'high-priority' chemicals have Product Stewardship summaries prepared and publicly available on the Company website.
<table>
<thead>
<tr>
<th>CODE</th>
<th>ACCOUNTING METRIC</th>
<th>LOCATION OR DIRECT ANSWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTCH-410b.2</td>
<td>Discussion of strategy to (1) manage chemicals of concern and (2) develop alternatives with reduced human and/or environmental impact</td>
<td>Regulatory Compliance; Product Stewardship; Designing Products for ESG Benefit; ESG-Focused Growth and Innovation. As a member of American Chemistry Council (ACC), Stepan is actively engaged with the Global Product Strategy (GPS) initiative. GPS, which is designed to meet United Nation's Strategic Approach to Chemicals Management, aims to improve product stewardship within the chemical industry and with suppliers and customers throughout the chain of commerce. Additionally, Stepan has implemented the Product Safety Code which contains 11 management practices to focus on the knowledge, management, and communication of the health and environmental impacts of chemical products. Stepan has prioritized the chemicals we manufacture and is using a tiered approach to create our product stewardship summaries, which have been completed for those chemicals identified as being a high priority according to national and/or international regulation.</td>
</tr>
</tbody>
</table>

Genetically Modified Organisms

<table>
<thead>
<tr>
<th>CODE</th>
<th>ACCOUNTING METRIC</th>
<th>LOCATION OR DIRECT ANSWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTCH-410c.1</td>
<td>Percentage of products by revenue that contain genetically modified organisms</td>
<td>Omission: This disclosure topic does not apply to Stepan business model, metrics are omitted based on the lack of applicability.</td>
</tr>
</tbody>
</table>

Management of the Legal and Regulatory Environment

<table>
<thead>
<tr>
<th>CODE</th>
<th>ACCOUNTING METRIC</th>
<th>LOCATION OR DIRECT ANSWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTCH-530a.1</td>
<td>Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry</td>
<td>Responsible Practices; Environment, Resources, and Climate Impact; Advantageous Products; Stepan 2021 Form 10-K, Item 1A</td>
</tr>
</tbody>
</table>

Operational Safety, Emergency Preparedness and Response

<table>
<thead>
<tr>
<th>CODE</th>
<th>ACCOUNTING METRIC</th>
<th>LOCATION OR DIRECT ANSWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTCH-540a.1</td>
<td>Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), and Process Safety Incident Severity Rate (PSISR)</td>
<td>Analyst Download</td>
</tr>
<tr>
<td>RTCH-540a.2</td>
<td>Number of transport incidents</td>
<td>Analyst Download</td>
</tr>
</tbody>
</table>

Activity Metric

<table>
<thead>
<tr>
<th>CODE</th>
<th>ACCOUNTING METRIC</th>
<th>LOCATION OR DIRECT ANSWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTCH-000.A</td>
<td>Production by reportable segment</td>
<td>Analyst Download</td>
</tr>
</tbody>
</table>
Independent Assurance Statement to Stepan Company

ERM Certification and Verification Services (ERM CVS) was engaged by Stepan Company (Stepan) to provide limited assurance in relation to specified 2021 Greenhouse Gas (GHG) and energy data in its 2021 Sustainability Report and ESG Analyst Download, as set out below.

**Engagement Summary**

<table>
<thead>
<tr>
<th>Scope of our assurance engagement</th>
<th>Whether the corporate 2021 GHG and energy data for the following selected indicators are fairly presented, in all material respects, in accordance with the reporting criteria:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Scope 1 GHG Emissions (kilotons CO2e)</td>
</tr>
<tr>
<td></td>
<td>• Scope 2 GHG Emissions, location and market-based (kilotons CO2e)</td>
</tr>
<tr>
<td></td>
<td>• Total Scope 1 and 2 GHG Emissions (kilotons CO2e)</td>
</tr>
<tr>
<td></td>
<td>• Total Energy Consumed (1000 Terajoules)</td>
</tr>
<tr>
<td>Reporting period</td>
<td>The data covered by the assurance relates to the year ending 31st December 2021.</td>
</tr>
<tr>
<td>Reporting criteria</td>
<td>• WBCSD/WRI GHG Protocol (2004, as updated January 2015) for the Scope 1 and 2 GHG emissions</td>
</tr>
<tr>
<td></td>
<td>• Stepan's internal reporting criteria and definitions</td>
</tr>
<tr>
<td>Assurance standard</td>
<td>ERM CVS’ assurance methodology, based on the International Standard on Assurance Engagements ISAE 3000 (Revised).</td>
</tr>
<tr>
<td>Assurance level</td>
<td>Limited assurance</td>
</tr>
<tr>
<td>Respective responsibilities</td>
<td>Stepan is responsible for preparing the Report and for the collection and presentation of the information within it. ERM CVS’ responsibility is to provide conclusions on the agreed scope based on the assurance activities performed and exercising our professional judgement.</td>
</tr>
</tbody>
</table>

Our conclusions

Based on our activities, as described below, nothing has come to our attention to indicate that the 2021 data and information for the disclosures listed under ‘Scope’ above are not fairly presented, in all material respects, with the reporting criteria.

Our assurance activities

Our objective was to assess whether the assured emission and energy data are reported in accordance with the principles of completeness, comparability (across the organisation) and accuracy (including calculations, use of appropriate conversion factors and consolidation). We planned and performed our work to obtain all the information and explanations that we believe were necessary to provide a basis for our assurance conclusions. We applied a 5% material error threshold.

A multi-disciplinary team of EHS and assurance specialists performed the following activities:

- Interviews with relevant corporate staff to understand and evaluate the data management systems and processes (including IT systems and internal review processes) used for collecting and reporting the selected data.
- Virtual visits to three sites (Millsdale, USA; Voreppe, France; and Vespasiano, Brazil) to review local reporting processes and consistency of reported annual data with selected underlying source data for each indicator.
- An analytical review of the data from all sites and a check on the completeness and accuracy of the corporate data consolidation.
- Confirmation of appropriate representation of assured data in the above mentioned reports.

The limitations of our engagement

The reliability of the assured data is subject to inherent uncertainties, given the available methods for determining, calculating or estimating the underlying information. It is important to understand our assurance conclusions in this context.

Due to COVID travel restrictions, we planned our assurance engagement to include virtual site visits. While we believe this approach does not affect our limited assurance conclusion(s) above, we draw attention to the possibility that if we had undertaken in person visits we may have identified errors and omissions in the assured information that we did not discover through the alternative assurance program.

Our independence

ERM CVS is a member of the ERM Group. The work that ERM CVS conducts for clients is solely related to independent assurance activities and auditor training. Our processes are designed and implemented to ensure that the work we undertake with clients is free from bias and conflict of interest. ERM CVS and the staff that have undertaken work on this assurance exercise provide no consultancy related services to Stepan in any respect.

Our Observations

We have provided Stepan with a separate management report with our detailed (non-material) findings and recommendations.

Beth Wyke
Head of Corporate Assurance Services, Inc., Malvern, PA
22 April 2022
ERM Certification and Verification Services, Inc.
www.ermcvs.com Email: post@ermcvs.com