

# Bringing Science to Sustainability

2020 SUSTAINABILITY REPORT



# MESSAGE FROM THE CEO



## Working Together for a Cleaner, Healthier, More Energy Efficient World

Stepan Company has provided innovative specialty chemicals to diverse markets that make a positive difference in people's lives, and we have done so while maintaining a resolute focus on operating safely, responsibly, and with integrity for ninety years. Today, the world continues to face many challenges, and we are fortunate to have a global team that is committed to each other and to delivering products that enable a safer, cleaner, and more energy efficient world.

At Stepan, the diversity of our employees, their innovative ideas and unique backgrounds are what make us special and impactful in the market. We continue to advocate our People First value to ensure we have a safe work environment where differences are celebrated. Through the pandemic, Stepan has responded to a surge in demand for cleaning, disinfection, and personal wash products with speed and agility, increasing production of key ingredients that contribute to the fight against the COVID-19 virus. With the ongoing demand for these products, we continue to put our people first. At the beginning of the pandemic, we rapidly implemented numerous safety protocols, work from home options, and expanded support resources available to our employees and their families to help reduce the strain of unprecedented challenges.

Over the past year, we made notable progress on our sustainability goals with a commitment to cover electricity consumption at our largest manufacturing plant with Renewable Energy Credits. We also achieved significant reductions in water usage and are identifying new opportunities for added reductions. We are proud that the Wall Street Journal recognized Stepan as the 45<sup>th</sup> most sustainably managed company in the world in 2020.

As we look to the future, we have invested in Rhamnolipid bio-fermentation technology, which expands our capabilities to include important new biorenewable and sustainable products in our Surfactant business. In addition, we have expanded our manufacturing capabilities for products entering insulation markets aimed at improving energy efficiency. Stepan is a charter member of American Chemistry Council (ACC) Responsible Care® and a signatory to the United Nations Global Compact, and we remain committed to delivering sustainable business value according to the principles outlined by those organizations. Through the markets we serve, Stepan products promote improved health and hygiene, agricultural productivity, energy conservation, and efficient resource use. We have identified key Sustainable Development Goals (SDGs) for which our products and our practices deliver benefits, and we aim to increase our positive impact in these areas.

We are determined to use Stepan's science and engineering capabilities to drive progress on our sustainability goals, and we welcome the opportunity to share our approach for Working Together for a Cleaner, Healthier, more Energy Efficient World.

Sincerely,

A handwritten signature in black ink, reading "F. Quinn Stepan, Jr." in a cursive script.

**F. Quinn Stepan, Jr.**  
Chairman and Chief Executive Officer

**Stepan is a charter member of American Chemistry Council (ACC) Responsible Care® and a signatory to the United Nations Global Compact, and we remain committed to delivering sustainable business value according to the principles outlined by those organizations.**







## ABOUT STEPAN

Stepan is a global manufacturer of specialty and intermediate chemicals. We deliver products and technologies to drive performance across a wide range of markets. Through our core business segments—Surfactants, Polymers, and Specialty Products—we meet the diverse needs of our customers across the globe.

Stepan's Surfactant segment supports manufacturers of personal care and cleaning products with ingredients that deliver foaming, cleaning, and other performance qualities. Our surfactants are also used in customized solutions for the agricultural, oilfield, and construction markets. Stepan's Polymer segment delivers products with broad functionality for use in rigid foam insulation and coatings, adhesives, sealants, and elastomers (CASE) applications. Stepan polymers are also used for applications in construction materials and components of automotive, boating, and other consumer products. Our Specialty Products segment is a leading producer of patented, science-based nutritional oils used in the food, flavoring, nutritional supplement, and pharmaceutical industries.

Headquartered in Northfield, IL, Stepan has nearly 2,300 employees across 11 countries. We continue to expand our manufacturing capabilities and technical expertise to address existing and emerging needs, with a current network of 20 active production facilities globally. As we look ahead, we see opportunities to grow and diversify the markets we serve in a manner that addresses environmental and societal needs. In all the work we do, we maintain our commitments to operate responsibly and with integrity and to be the preferred partner of our customers.



Top row. Left to right: Joaquin Delgado, Gregory E. Lawton, Michael R. Boyce, and Lorinda Burgess  
Bottom row. Left to right: Edward J. Wehmer, Jan Stern Reed, F. Quinn Stepan, Jr., and Randall S. Dearth

## Governance

Stepan has an eight-person Board of Directors, seven members of which are independent. Our Board of Directors, management team, employees, and business partners around the world are committed to following the highest standards of business conduct and ethical behavior outlined in our Code of Conduct. The Board of Directors and its committees—Audit, Compensation and Development, Compliance, and Nominating and Corporate Governance—actively guide and oversee the implementation of these high standards. Please see our [website](#) for more information on our corporate governance practices.



# Sustainability at Stepan

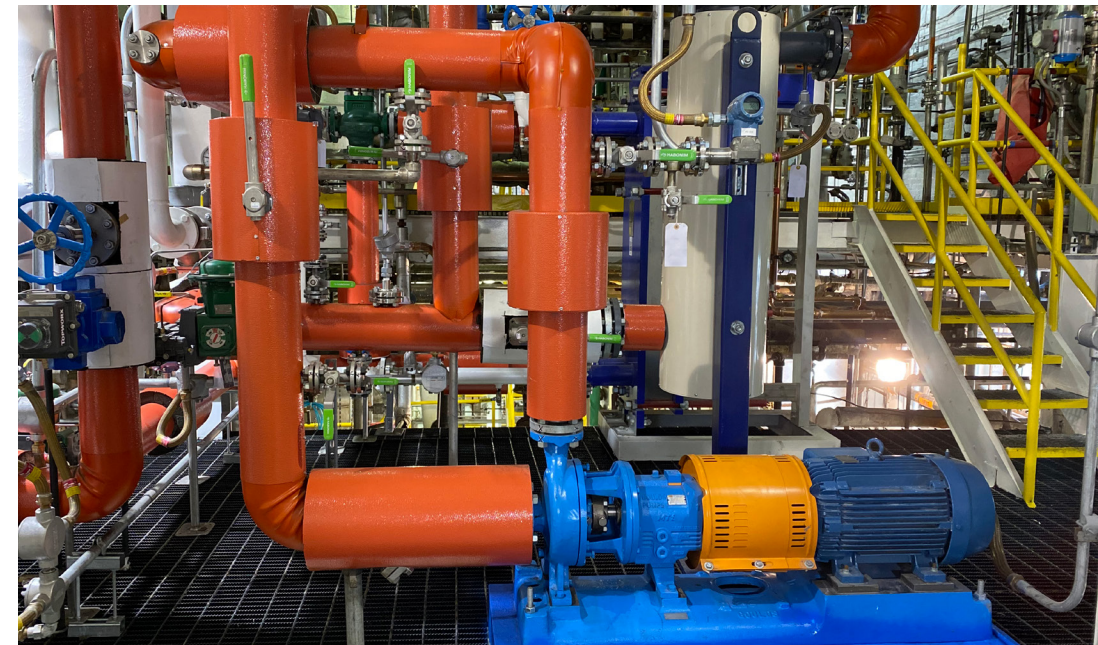
## OUR APPROACH

At Stepan, we see our sustainability commitments as a way to ensure the long-term success of our business. We use science and technology to deliver products that make a difference and continuously strive to improve the safety and security of our employees and operations. Our approach to sustainability includes a focused effort on reducing the environmental impact of our operations and an understanding of our obligation to operate ethically and in a manner that respects globally recognized human and labor rights. Our Sustainability Steering Team continues to lead the charge in embedding sustainability thinking across all Stepan business functions and reports regularly to Stepan's Operating Committee of executive officers.

### Stakeholder Engagement and Materiality

Stakeholder engagement is critical to how Stepan drives success and upholds our values. We actively seek input from our employees, customers, suppliers, investors, and local communities and we engage respectfully and thoughtfully on the issues of importance to our business, across our regions of operation, to inform our actions. This 2020 Sustainability Report leverages our internal materiality assessment conducted in 2019, in which Stepan identified the most relevant issues for the business and our external stakeholders using widely recognized industry and sustainability frameworks.

Stepan's Maywood, NJ, manufacturing facility. The Maywood team implemented projects that have reduced water usage for the site.





# SUSTAINABILITY PRIORITIES

We continue to manage the sustainability priorities we identified through our 2019 materiality assessment, and drive progress on associated goals.

RESPONSIBLE PRACTICES



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

**Material Issues**

- Employee Safety and Health
- Ethics and Compliance
- Product Stewardship and Compliance
- Third Party Partnerships

ADVANTAGEOUS PRODUCTS



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

**Material Issues**

- Material Sourcing
- Product Development
- Product Benefits During Use

EFFICIENCY FOR THE PLANET



Managing our facilities and resources responsibly to reduce our environmental impact

**Material Issues**

- Operations Management
- Emissions
- Energy
- Water Use
- Waste Reduction

INVESTING IN PEOPLE



Investing in employee safety, development and well-being, contributing to local economies, and serving our communities

**Material Issues**

- Safety
- Employee Training and Development
- Employee Well-Being
- Community Connections

# GOALS FOR A MORE SUSTAINABLE FUTURE

SUSTAINABILITY PRIORITY TOPIC	GOAL	TARGET YEAR	2020 AND 2021 PROGRESS
Ethics and Compliance	100% Employee participation in Ethics and Compliance trainings	2021	100% participation in Ethics and Compliance trainings
Sustainably Advantaged Products	80% of our Research and Development investment toward sustainable processes and products	2023	Development of tools to evaluate Stepan's product portfolio for sustainability benefits
Employee Safety	A Total Recordable Incident Rate (TRIR) of less than 0.25 across all Stepan facilities	2025	0.64 for 2020 with 13% improvement in performance over prior year
Water Conservation	Conduct risk assessments/establish water management plans at 100% of sites	2023	Water risk assessments conducted for all sites in first half 2021
Water Conservation	Reduce global water usage by 40%	2025	16% reduction in water usage across our global manufacturing sites in 2020 over a 2016 baseline
Emissions Reduction	Reduce greenhouse gas emissions per metric ton of production by 10%	2025	6% decrease in location-based emissions and 17% decrease in market-based emissions in 2020 over 2016 baseline
Renewable Energy	Source 20% of global electricity from renewable sources	2025	3% electricity covered by renewable energy credits in 2020. Beginning in 2021, about 35% of electricity consumption covered by renewable energy credits



# 2020 SUSTAINABILITY HIGHLIGHTS

## Committing to Renewable Energy

With the purchase of renewable energy credits to cover 100% of the electricity usage at our largest manufacturing site, we are helping to decouple economic growth from GHG emissions.



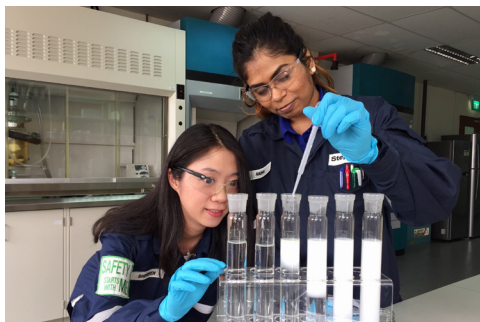
## Growing Our Manufacturing Network

Stepan's purchase of INVISTA's aromatic polyester polyol business enables company growth in this sector and more efficient delivery to insulation markets in the U.S. and Europe. Stepan products going into rigid foam insulation support goals for energy conservation.



## Diversifying Our Technological Capabilities

Stepan's 2020 acquisition of NATSURFACT® and the more recent acquisition of a fermentation plant in Lake Providence, Louisiana, are expected to enable commercialization of rhamnolipid-based biosurfactants with a favorable sustainability profile across numerous markets.



## Designing for Sustainable Collaboration

Stepan's new LEED certified Agricultural Innovation Center incorporates numerous design features to reduce environmental impacts and also offers opportunities for research, product testing, and customer collaboration in the area of agricultural science, soil regeneration, and crop productivity. Located near area universities, Stepan aims for the center to be a resource for students and researchers.



## Using Technology to Keep Us Connected

Stepan's HR and IT teams launched new platforms that enable strong connectivity and improved learning and training opportunities across our global sites as many of our teams shifted to remote work. Through virtual engagement programs, Stepan promotes connectedness, collaboration, and networked functionality to support business, community outreach, and other partnerships.



## Conserving Resources

Ongoing efforts to optimize or modify processes at our manufacturing sites resulted in a 16% reduction in water usage and further action will help Stepan conserve resources in our communities of operation.



## Partnership for Positive Impact

Our new partnership with Emory University and the Resilience and Sustainability Collaboratory (RSC) aims to enable research and creation of innovative solutions to sustainability challenges in the region.



## Implementation of Energy and Sustainability Council

The implementation of Energy and Sustainability Councils will promote dialogue and sharing of best practices in this area.







## Voluntary Accountability Frameworks

Stepan supports or utilizes various organizations, frameworks, and standards to ensure responsible practices are integrated into the business. Some are utilized across all of our sites, while others are implemented at select sites:

- 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
- SMETA audit standards
- Together for Sustainability audit standards
- United Nations Global Compact

We work to demonstrate best practices in our industry, identify opportunities for improvement, and deliver benefits to society and the environment. We engage these and other third-party organizations through membership commitments, certifications, reporting, and external audits.

## Alignment to SDGs

Stepan is a signatory to the [United Nations Global Compact](#) and supports specific targets of the [Sustainable Development Goals \(SDGs\)](#) for which we can have a significant positive impact. For more information on how we contribute to these goals, please see our [2019 Sustainability Report](#), and continue reading to learn about our 2020 efforts. For the nine SDGs listed below, Stepan works to bring increased value to people and the environment:



Focusing on agricultural products that promote more efficient resource use by reducing spray drift and seed coating technology that promotes seed protection and improved agricultural productivity. Developing technologies to improve product efficacy and reduce the intensity of chemical application to farmland



Finding opportunities to promote improved disinfection, hygiene and wellness with household and institutional cleaning products. Supporting nutritional needs for infants and older persons through Stepan's Specialty Products. Investing in employee health and wellness programs.



Expanding options for sanitation and microbial control in household, institutional, and industrial settings. Promoting efficient water management in our manufacturing practices.



Working to uphold human and labor rights for our employees and in our supply chain. Providing economic growth opportunities in science and technology fields for our areas of operation.



Supporting improved efficiency and reduced impact of industrial activity through use of Stepan products. Promoting equipment longevity through Stepan corrosion inhibitors. Expanding Stepan's economic impact with growth in manufacturing and research and development.



Improving energy efficiency, increasing use of renewable energy and renewable raw materials, and reducing water consumption in our operations. Managing chemicals and promoting product stewardship in accordance with international frameworks.



Supporting energy efficiency in our operations, in product transportation, and with product use. Increasing the use of renewable energy for our operations.



Working to enable improved and safer crop production while mitigating impact to adjacent biological systems. Supporting regeneration of soils.



Promoting behaviors and practices aimed at preventing and eliminating corruption and bribery. Implementing policies and practices aimed at respecting and protecting fundamental human and worker rights.





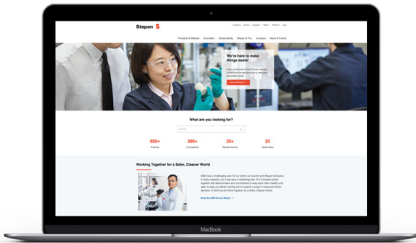
# ABOUT THIS REPORT

In this Sustainability Report, published in May 2021, Stepan highlights our efforts over the previous year and shares performance data for 2020, unless otherwise noted. This Report provides an update to Stepan’s inaugural Sustainability Report, which was released in March 2020, and references the [Sustainability Accounting Standards Board](#) (SASB) Chemicals Standard as well as the [Global Reporting Initiative](#) (GRI) Standards 2016, 2018, and 2020 for the following standards:

- GRI 102: General Disclosures 2016
- GRI 103: Management Approach 2016
- GRI 205: Anti-Corruption 2016
- GRI 302: Energy 2016
- GRI 303: Water and Effluents 2018
- GRI 305: Emissions 2016
- GRI 306: Effluents and Waste 2016 and 2020
- GRI 307: Environmental Compliance 2016
- GRI 308: Supplier Environmental Assessment 2016
- GRI 401: Employment 2016
- GRI 403: Occupational Health and Safety 2018
- GRI 404: Training and Education 2016
- GRI 413: Local Communities 2016
- GRI 414: Supplier Social Assessment 2016
- GRI 416: Customer Health and Safety 2016
- GRI 417: Marketing and Labeling 2016

The contents of this report are framed by Stepan’s Sustainability Priorities and informed by interviews conducted with subject matter experts at Stepan. Stepan invites you to read this Sustainability Report to learn about our commitments to promote ethical business practices, and social and environmental responsibility.

All photos were taken prior to the outbreak of the COVID-19 pandemic or in accordance with COVID-19 safety guidelines.



For additional information about Stepan, please visit [www.stepan.com](http://www.stepan.com). If you have further questions or comments, please contact us at [sustainability@stepan.com](mailto:sustainability@stepan.com).



Charles Draper and Laura Olson; Business Manager, Agricultural Products



# Responsible Practices

SDG 8

SDG 9

SDG 12

SDG 16

## OUR COMMITMENT

Stepan's success is built upon strong partnerships across our stakeholder groups. Our employees are the cornerstone of all our work, and employee health and safety are our top priorities. This is true every year, but has been especially critical during the extreme conditions created by the COVID-19 pandemic. We value and depend on our customers and we also recognize the key role our suppliers and other business partners play in enabling Stepan's ambitions. We value the communities in which we operate, and we work to earn and maintain their trust and respect as a strong community partner. Stepan aims to be recognized as the preferred partner through our focus on exceptional products, superior service, and ethical and responsible practices in everything that we do.

**We value and depend on our customers and we also recognize the key role our suppliers and other business partners play in enabling Stepan's ambitions.**

## AWARDS



**WSJ**  
**100**  
MOST  
SUSTAINABLY  
MANAGED  
COMPANIES 2020

In 2020, Stepan was proud to have been recognized by the Wall Street Journal as the 45th Most Sustainably Managed Company in the world. Additionally, Stepan was ranked in the top 7% among "[manufacturers of other chemical products](#)" assessed by the EcoVadis platform. This ranking includes a review of management and practices in the areas of environmental performance, labor and human rights, responsible sourcing, and business ethics.

Photo on the left: Renee Luka, Senior Research Chemist, Alkoxylation



# OUR APPROACH

## Employee Safety and Health

In 2020, we faced unprecedented circumstances in our Company’s history. The COVID-19 pandemic brought many challenges for Stepan, but the health and safety of our employees was and continues to be our number one priority. Company-wide COVID-19 guidelines based on the World Health Organization and U.S. Centers for Disease Control and Prevention recommendations were developed across all Stepan sites. As an essential industry, our employees continued to provide cleaning, disinfection, and personal wash products critical to fight the COVID-19 pandemic. Frequent and clear communication from our leadership provided additional guidance and support to employees. We created a Return to Workplace Taskforce that played a key role in updating our safety protocols and training procedures so employees could perform their jobs while minimizing exposure risk.

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. The U.S. Occupational Safety and Health Authority (OSHA) re-certified our [Winder, GA, site with a Star designation](#), the highest level for its Voluntary Protection Program (VPP). Our Elwood, IL (Millsdale) and Anaheim, CA, sites also carry the OSHA VPP Star recognition. At our facilities outside the United States, we encourage participation in country-specific Responsible Care® program equivalents. Our Nanjing, China, site was recertified according to ISO 45001 standards for Occupational Health and Safety in September 2020.

### OSHA re-certified our Winder, GA, site with a Star designation, the highest level for its Voluntary Protection Program.

We are proud of the work of employees across all our sites to maintain a safety mindset. In 2020, 42% of Stepan sites achieved the President’s Safety Award, and our Stalybridge, UK, facility received the award for the first time since 2011. This recognition is given to any Stepan facility that meets criteria related to recordable incidents, injuries, and other safety and compliance requirements. In the last three years, the UK site has also been recognized by the UK Chemical Industries Association for responsible care, process safety management, and resource efficiency. Advanced hazard awareness training for all employees, tighter control of safety critical processes, and development of an open, engaging culture has driven the improvement for the Stalybridge team.

Thanks to our strong commitment to safety, we have seen a 13% improvement in our global recordable injury rate and a reduction in the number of lost work days compared to 2019. We have also had year-over-year improvement in the number of process safety events recorded to the ACC RCMS®. For more information on our employee health and safety performance, please see the [Investing in People](#) section of this report.



Stepan’s Manufacturing Facility in Nanjing, China

## Information Technology Enablement for Safety and Security

Stepan’s ability to effectively respond to the evolving and dramatic impacts of the COVID-19 pandemic would not have been possible without the indispensable work of Stepan’s Information Technology (IT) team. Stepan’s IT team accelerated launch of, and training support for, remote-work technology across our global sites. The agility that all our employees showed in dealing with unforeseen and unprecedented circumstances was critical for enabling Stepan to continue production and delivery of our products that have been crucial for mitigating the impacts of the virus.

The IT team’s work to implement modern collaboration technology, including pilots that are being investigated for Virtual and Augmented Reality, have the potential to decrease non-essential employee travel and also create new opportunities for dynamic customer engagement solutions (learn more in our Products section). Stepan’s IT team is transitioning Company systems to enhance business continuity and disaster recovery capabilities. The team is evaluating options to further strengthen Stepan’s ability to continue operations in the event of extreme or unanticipated circumstances. Additionally, on-going 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.



## Ethics and Compliance

Ethics and compliance are critical aspects of Stepan’s business. We enhanced our Ethics and Compliance program in 2019 and continued to build on the success of those efforts in 2020, including beginning a process to update and harmonize our ethics and compliance procedures and processes that will continue in 2021. We have evolved our training processes to make them more efficient and effective, and we take pride in our efforts to ensure everyone in the Company receives critical ethics and compliance training. In 2020, we achieved 100% employee completion for our Code of Conduct training, and an average of 98% completion on our quarterly compliance trainings. While we have reached our goal of 100% employee participation in Ethics and Compliance training by 2021, our aim is to maintain this level of performance on an ongoing basis.



Dr. Jimmy Jin, Senior Functional Engineer

Stepan’s Code of Conduct (the Code) outlines our expectations for workplace behaviors and practices, helps us create an environment of trust, and holds us accountable for safeguarding the rights of our workers. In 2020, 42% of Stepan sites achieved the Stepan President’s Safety Award, and our Stalybridge, UK, facility received the award for the first time since 2011. There are multiple channels in which to speak up, including communicating to a supervisor or through our helpline via web or phone; anonymous reporting is an option wherever permitted by law.

## Enterprise Risk Management

Stepan continues to amplify our Enterprise Risk Management (ERM) process. Building on ERM benchmarking work in 2019, we have focused more specifically on integrating sustainability into our ERM process. Our updated process, which uses a modified model from the Committee of Sponsoring Organizations of the Treadway Commission (COSO), allows us to more consistently map risks and systematically review, report on, and address those risks. In 2021, we will continue to enhance our risk mitigation strategy.

### Building on ERM benchmarking work in 2019, we have focused more specifically on integrating sustainability into our ERM process.

Stepan’s 20-person Sustainability Steering Team undertook a separate risk evaluation exercise to map sustainability-related risks to the Company. This information will be used to identify opportunities to mitigate and manage risks related to environmental, social and governance (ESG) issues and to support strategy development.

## Product Stewardship and Compliance

In addition to delivering products with exceptional performance, Stepan works to ensure our products meet or exceed safety standards aimed at protecting people and the environment. We care about the performance of our products and work to uphold all applicable laws and regulations concerning environmental compliance, health and safety, and product registration. We find opportunities to go beyond regulatory compliance through ecolabel certifications, and we promote transparency and safety through alignment with industry-standard frameworks, including:

- Globally Harmonized System for Chemical Classification and Labeling (GHS)
- Global Product Strategy (GPS) designed to meet the United Nations Strategic Approach to International Chemicals Management
- Biocidal Product Legislation (BPR), including the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and EU-BPR
- U.S. Toxic Substances Control Act (TSCA)
- European Union regulation on the Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH)
- REACH-like and TSCA-like regulations from other countries

We are also an active member of numerous trade associations that represent our industry in different regions of the world and allow us to stay apprised of critical issues while helping us monitor upcoming legislative and regulatory shifts.





## Regulatory Compliance for COVID-19 Impact

At the time of publishing this report, Stepan offers 35 end-use products (EUP) on the U.S. Environmental Protection Agency's (EPA) list of disinfectants (List N) that the U.S. EPA expects to kill SARS-CoV-2, the virus that causes COVID-19.

Of these 35 EUPs, 28 have off-label Emerging Viral Pathogen (EVP) claims and 12 have on-label SARS-CoV-2 claims (a given EUP can have one or both claims), allowing our customers to make statements regarding the efficacy of these products against SARS-CoV-2. Four additional EUPs have been submitted for U.S. EPA approval, four product submissions have been approved for SARS-CoV-2 claims in Canada, and several additional EUPs are at an external test lab for SARS-CoV-2 efficacy testing.

The applications for these products range from hard surface disinfectants, to ready-to-use wipes, to pump sprays. For more information on how Stepan supports the fight against COVID-19, please visit our [website](#).

## Other Regulatory Priorities

In response to concerns about potential impact of 1,4-dioxane on human health and the environment, as well as to ensure that finished consumer products are able to meet new 1,4-dioxane regulations in New York State, Stepan initiated a cross functional program to lower 1,4-dioxane levels in ethoxylated surfactants. 1,4-dioxane is produced as a by-product during manufacture of ethoxylated surfactants and trace amounts may occur in some products. Stepan manufactures ethoxylated surfactant products for customers to use in formulating cosmetics, personal care, and household cleaning products.

Stepan is modifying our manufacturing process for ethoxylated surfactants to develop low 1,4-dioxane products. In addition, Stepan is promoting other surfactants as alternatives and developing low- or no dioxane consumer product formulation prototypes to assist our customers.

## Industry and Trade Associations

In 2020, Stepan engaged with our trade groups on a number of pertinent topics for the chemical industry, and we continue to educate ourselves and the industry on the latest developments both from a scientific and regulatory perspective. Microplastics were a critical focus in 2020 and continue to be so in 2021. We are closely monitoring the development of REACH regulation for microplastics, as well as other REACH-like regulations on the horizon.

We are also following the EU roadmap on Chemicals Strategy for Sustainability (CSS). Stepan team members led various activities with sector groups in the European Chemical Industry Council. We worked with surfactant sector groups to drive scientific and technical tasks, including supporting the development of a new biodegradation test in seawater. Stepan chaired the Steering Committee of Environment and Health — Risk Assessment and Management and worked on technical and scientific topics to support the development of sound risk assessment regulatory measures. We had the opportunity to share our learnings from the COVID-19 pandemic as a global biocide manufacturer to the regulatory community during the Chemical Watch conferences in July 2020.

Stepan provided support to European authorities through our work with the European Offshore Chemical Association, by helping them better assess the risk of deploying biocidal products in the North Sea to prevent oilfield process safety events, and also studied the unnecessary replacement of equipment and reduction of chemical use. Another critical contribution we made in 2020 was to lead technical work on the establishment of new European Norm and ISO standards to support the development of bio-based and bio-resourced surfactants. Those standards will now enable the industry to better innovate and enhance green chemistry.





### Third-Party Partnerships

Stepan works to maintain a resilient and agile global supply chain, and we continue to grow our capabilities in order to meet the evolving needs of our customers. We depend on our third-party partners for continued success and we work to evaluate and manage potential risks through several mechanisms. Stepan’s Third Party Code of Conduct communicates our expectations for ethical business practices and we expect our supply chain partners to uphold the same principles to which we hold ourselves. Our supplier screening tool, using guidance from the Department of Justice, helps us evaluate our business partners on ESG criteria, and we plan to expand on this process in 2021. Stepan screened every new third-party organization that we had a material interaction with in 2020, totaling more than 30,000 companies. We regularly review and update our policies and procedures relative to third parties to ensure we are following the best practices in our industry.

**We depend on our third-party partners for continued success and we work to evaluate and manage potential risks through several mechanisms. Our supplier screening tool, using guidance from the Department of Justice, helps us evaluate our business partners on ESG criteria, and we plan to expand on this process in 2021.**

Additional expectations for our palm material suppliers are outlined in Stepan’s Responsible Sourcing Policy, which includes criteria related to ending deforestation, preventing development on peatlands, and protecting human and labor rights. Stepan looks to partner with our customers and suppliers to address the challenges facing the palm supply chain. In 2021, we plan to partner with the EcoVadis platform to begin engaging our suppliers and customers on a broader range of sustainability issues.

### HIGHLIGHTS

- 42% of sites achieved Stepan’s President’s Safety Award in 2020
- 63% of Stepan manufacturing sites reached one year without a recordable injury
- Screened 30,000+ third-party organizations in 2020







SDG 6

SDG 9

SDG 12

SDG 13

# Efficiency for the Planet

## OUR COMMITMENT

Stepan is directing significant efforts to drive operational efficiency in support of environmental goals. Across our sites globally, Stepan teams are building the capabilities to more effectively monitor and manage our operations to reduce emissions, energy and water usage, and waste. Stepan has identified numerous opportunities aimed at reducing the footprint of our facilities, and we will continue delivering products that support social and environmental needs with a focus on practices and systems that support responsible use of resources.

## OUR APPROACH

### Operations Management

Stepan has spent the last few years strengthening our data collection and tracking processes to better report our emissions, energy, water, and waste impacts, as well as incidents and accidents, across our facilities. The Stepan Management System (STEMS) enables centralized data management and greater transparency, and is being implemented first for our U.S. manufacturing sites. With a successful U.S. launch of the data management platform, STEMS will support our goals for continued regulatory compliance, effective management of risks, and improved identification of opportunities. Implementation of this tool to all our global sites will take place over the next few years.

**Across our sites globally, Stepan teams are building the capabilities to more effectively manage our operations to reduce emissions, energy and water usage, and waste.**

We have increased process safety awareness training for plant personnel to improve identification of potential risks, inefficiencies, and opportunities for safety and process optimization. This includes posting of visual cues to promote awareness of potential issues and to encourage prompt corrective actions. We plan to increase training events in 2021 and are also evaluating plans for metering upgrades, which can improve tracking and management for utilities.





Stepan's Manufacturing  
Facility in Bauan, Batangas  
the Philippines

## Emissions

Stepan reports annually to American Chemistry Council (ACC) Responsible Care® on our air emissions affecting air quality, and we also report our Scope 1 and 2 emissions to CDP (formerly Carbon Disclosure Project). We continue to look for other opportunities to drive further GHG emissions reductions. Stepan has also made improvement toward reducing other air emissions. At our largest facility at Elwood, IL, (Millsdale) projects to mitigate wastewater air emissions resulted in a 3% reduction in site-wide volatile organic matter (VOM) emissions. At our Winder, GA, facility voluntary emissions reduction projects contributed to lowering other air emissions below permitted levels.

## Energy

At Stepan, we are continually looking for opportunities to drive energy efficiency throughout our global operations. We have set a goal of securing 20% of our global electricity from renewable sources by 2025. In 2019, two of our facilities shifted to 100% renewable energy use. Beginning in December 2020, we source 100% of electricity purchases at our largest facility, Millsdale, with renewable energy credits, covering about 35% of our total global electricity purchases. In 2020 we also investigated opportunities for on-site solar power at our Millsdale facility, and this work will inform our ambitions to participate in renewable energy markets.

### Stepan's North American Energy Council will work to enable progress toward our energy and emissions goal.

Our European manufacturing teams improved energy efficiency in 2020 with equipment upgrades and process optimization projects. This includes modification to a hot oil unit, which reduced natural gas use at one site by more than 8%, and a project to improve cycle-time efficiency, resulting in ongoing energy savings. A similar focus at Stepan's Asian manufacturing facilities has resulted in a nearly 30% improvement in energy efficiency associated with process improvements at one site and reduced steam usage with equipment upgrades at another. Across our operations projects have been identified for the coming year, as our sites continue work to improve their energy footprint.

As a way to further increase energy efficiency and share best practices across our sites, we have created the Stepan North American Energy Council with cross-functional representatives from all of our North American manufacturing sites.

The Energy Council plans to focus on four main areas:

- Conduct energy assessments and surveys, targeting four sites for an in-depth assessment in 2021
- Develop a communication plan to promote sharing of best practices across our North American sites
- Integrate sustainability into our capital and maintenance processes, including equipment standards





## Water Use

Stepan understands the importance of managing our water resources for long-term use and in a manner that respects the rights and needs of our surrounding communities. We have spent the last few years working to understand water risks, opportunities, and to improve water use efficiency. In 2020, Stepan initiated a process to conduct detailed risk assessments at all our sites, and the results of this work will guide development of water management plans, with region or site-specific goals defined for our higher risk facilities. The STEMS platform will be key in standardizing processes and procedures for reporting as we grow our ambitions and capabilities in this area.

**Stepan's Maywood, NJ, team has engaged in a multi-year effort to reduce water usage. Upgrades to Maywood's chiller system reduced river water usage by 20%, supporting a long-term goal of eliminating use of river water.**

Several of our sites reduced water usage in 2020. Our Vespasiano, Brazil, site has implemented a multi-year project for condensate recovery as well as rainwater separation, enabling reuse of water on site and reduced usage of municipal water. The team continues to make additional improvements to improve water use efficiency and the project's success will be shared with other Stepan teams to help identify similar opportunities.

Stepan's Maywood, NJ, team has engaged in a multi-year effort to reduce water usage. In 2018, the Maywood site converted the cooling system to cold oil cooling, which significantly reduced city water usage and also contributed to improved operational efficiency. In 2019, additional upgrades to Maywood's chiller system reduced river water usage by 20%, supporting a long-term goal of eliminating use of river water. Other benefits from this work included an improved fire-safety rating and improved maintenance efficiency. The broad positive results have inspired the team to use a sustainability lens to evaluate other processes. These and other projects helped Stepan reduce our water intensity by 16% in 2020 versus 2016, resulting in strong progress toward our goal to reduce global water usage by 40% by 2025.

Jaroslav Kozinski, Senior  
Operator, Production





# Our Plant Personnel

During a year unlike any other, the fact that our employees at the plants managed to balance shifts in workplace safety protocols, changing operations to meet an unexpected demand for biocide and cleaning products, and challenges in their personal lives brought on by COVID-19, while still implementing projects that delivered energy efficiency, water use reductions, and waste reduction, is something that inspires us and makes us proud.



Lorenzo Sanchez, Production and Control Leader; Guillermo Camargo, Operator; Giovanni Montoya, Operator; Dario Nonato, Operator; Marco Ramos, Manufacturing Manager



Stepan's Manufacturing Facility  
in Voreppe, France

## Waste Reduction

Stepan continues to look for and find opportunities to reduce waste generated across our sites. Reducing waste supports our ongoing efforts to use resources responsibly and promote ambitions for a more circular economy. STEMS will help us better understand and manage where waste is generated and will facilitate goals to responsibly redirect it for further use. Stepan teams have identified opportunities to sell some of our byproducts, such as methanol, to other supply chains for reuse, thereby eliminating or reducing certain waste streams.

Our Manizales, Colombia, plant has implemented an effective waste reduction initiative that has been recognized by local environmental agencies as an example of excellence. Through a process that removes sulfates from wastewater, waste gases are returned for recycling and wastewater is reduced by 75%. The staff at our Manizales site also designed a system to rework switch acid, so that a material historically treated as waste can now be recovered for reuse. Projects at other sites have helped to reduce waste significantly and this will be a growing focus in the coming years. We are excited for more opportunities to prevent waste generation and support more circular manufacturing processes.

## HIGHLIGHTS

- 75% wastewater reduction at our Manizales plant
- 16% reduction in water use intensity across our global sites over a 2016 baseline
- 100% of electricity purchased at our largest manufacturing facility covered by renewable energy credits beginning in late 2020





SDG 2

SDG 3

SDG 6

SDG 13

SDG 15

# Advantageous Products

Rich Fernandez,  
Process Technology  
Development Analyst III

## OUR COMMITMENT

Stepan's diverse product portfolio enables us to address a wide range of market needs, and our goal is to be the preferred supplier to our customers across these markets. During the COVID-19 pandemic, Stepan responded to the urgent requirement for products enabling cleaning, disinfection, and personal wash products used to fight the COVID-19 virus. Stepan's team rallied to ensure continued production despite the extreme conditions impacting the world. Finding solutions to a wide range of challenges—supply chain impacts, streamlining operations to meet shifting demand, R&D partnerships for unanticipated issues, regulatory compliance for new products, and workplace and work-from home solutions—was required to ensure timely delivery of Stepan products. In addition to providing products to help mitigate the spread of COVID-19, Stepan delivered products and invested in research aimed at addressing a variety of other sustainability concerns. Our employees and our business partners made all of this possible, and through this same dedication we continue to grow our science and engineering capabilities to address global market needs.

## OUR APPROACH

### A Diverse Product Portfolio to Benefit People and the Environment

Stepan continues to expand our portfolio of high-performing products that provide social and environmental benefit. Through an internal evaluation of Stepan's product portfolio, over 75% of our revenue derives from products that deliver benefit toward the United Nations Sustainable Development Goals (SDGs), with impacts related to responsible consumption of resources; driving action toward climate change mitigation; improved sanitation, health and hygiene; working toward zero hunger; and protection of land and water resources.

With a growing focus on product and performance characteristics related to sustainability, Stepan is keenly focused on partnering with customers to deliver technologies and innovative thinking to tackle some of today's most pressing challenges.

In 2020, a large focus was ensuring delivery of Stepan ingredients essential for helping fight the spread of the COVID-19 virus. Stepan saw growth in our biocides business in response to this need, and our scientists have delivered 35 end-use disinfectant formulations considered effective by the U.S. EPA against SARS-CoV-2, the virus causing COVID-19. Stepan researchers continue their work to expand product offerings and to find adaptive solutions as our customer needs shift. For more information on how Stepan supports the fight against COVID-19, please visit our [website](#).



While the pandemic drove tremendous focus across our operations, Stepan also took actions to build on our existing strengths and to broaden our capabilities in new markets. In 2020, Stepan [acquired Logos Technologies LLC's NatSurFact®](#) business, opening new opportunities to deliver rhamnolipid products based on fermentation technology. Bio-fermentation is the conversion of natural feedstocks into 100% bio-based chemistries through microbial activity rather than through chemical processing. The bio-surfactants produced through this technology can be utilized across numerous existing Stepan business areas and also offer opportunities to diversify into new markets that can deliver progress toward globally recognized sustainability goals.

**In early 2021, Stepan made acquisitions that will support our efforts to create even more products with sustainability benefits.**

Stepan's product portfolio offers a wide range of sustainability advantages, including products that deliver improved insulating value, products for improved cold storage to support food preservation, and chemistries that enable light weighting of materials to promote lower fuel usage during transport. STEPANPOL® T-401 and STEPANPOL® T-327 are manufactured using recycled polyethylene terephthalate (rPET) and Stepan is examining opportunities and challenges with expanding use of rPET at other manufacturing sites as a means of supporting reuse of plastic waste.

Stepan offers numerous products based on bio-renewable raw materials and with high biodegradability. Some of the new products we launched in 2020 include a biodegradable corrosion inhibitor and STEPANQUAT® Soleil, a 100% active hair conditioner based on regionally sourced sunflower oil. This product, and other of Stepan's high active and dry products, help to reduce packaging and energy in transport per unit of active ingredient by reducing the volume of water that is shipped.

In agricultural systems, Stepan technology helps to improve the efficacy of products applied to crops and supports efforts to reduce impacts to non-target systems. These features are important as we see a strong focus on regenerating soil ecosystems while maintaining crop productivity.

Stepan's adjuvant surfactants promote precision application and help reduce drift of agricultural products to adjacent ecosystems. Stepan teams continue their work to enable high functionality with emerging technologies such as use of drones for agricultural product application. Water soluble and biodegradable polymers are key focus areas for applications such as seed coatings and crop protection, as we continue to develop solutions to address growing concerns over microplastics in the environment.

In early 2021, Stepan made acquisitions that will support our efforts to create even more products with sustainability benefits. Our acquisition of the aromatic polyester polyol business of INVISTA supports growth in the insulation market, with polyester polyols serving as a key component for improved insulating potential. Stepan has also acquired a fermentation plant in Lake Providence, LA, which will support our work to commercialize next-generation surfactants and will build on our 2020 acquisition of the NatSurFact® bio-fermentation technology.

As we look to support our customers with more quantitative data on the sustainability performance of our products, Stepan is developing a tool that will enable a systematic and more rigorous evaluation of our portfolio and our manufacturing processes, across a range of criteria. Our goal is to use this assessment tool to evaluate and rank our products, identify opportunities for improvement, and highlight Stepan's top sustainability performers. In addition, we see this effort as a way to support collaboration for improved products and technologies with our customers and other business partners.

Stepan has defined a goal to invest 80% of our R&D investment in sustainable products and processes by 2023. Progress toward this goal will include a focus on innovating to address current and emerging global goals, optimizing our manufacturing footprint to efficiently reach new markets, and diversifying our technological capabilities to provide novel solutions.



Employees participate in Tree Planting Day at Stepan's plant in Salto, Brazil  
From left to right: Leticia Guidi, Sales Analyst; Paulo Ruiz, Finance Analyst; Helio Levra, Plant Manager; Manoel Neto, Warehouse Assistant



**Bringing Science to Sustainability Through Collaboration and Innovation**

Stepan takes pride in working collaboratively with our customers, using our science and technology expertise to develop innovative solutions. Stepan was recently recognized by Henkel as a top supplier for our industry-leading performance, receiving first place for the Sustainability Award 2020 for Laundry and Home Care for our new vegan softening active. The material, which is made using biorenewable, regionally sourced plant oils, supports customer goals to reduce environmental footprint.

In 2020, Stepan entered a partnership with Emory University and the Resilience and Sustainability Collaboratory (RSC). As a charter member of the RSC, Stepan is excited to use our R&D strengths, as well as the resources at our new Leadership in Energy and Environmental Design (LEED) certified Agricultural Innovation Center (the Center) in Winder, GA, in support of priorities that we share with the RSC. Together we'll explore opportunities to bring positive impact on issues related to sustainable agriculture, soil health, and food security.

**Stepan takes pride in working collaboratively with our customers, using our science and technology expertise to develop innovative solutions.**

Stepan's R&D team anticipates other opportunities at the Center. The Center includes numerous features aimed at promoting energy and water efficiency, greenhouse gas emissions reduction, improved indoor air quality, and reduced environmental impact and will serve as a space to foster creative solutions and unique partnerships. The greenhouse and planned farm will allow for new product testing on live plants and in conditions more comparable to agricultural settings, and it will open opportunities to test new products aimed at building soil health. Stepan will also be able to use the on-site training center and testing labs to share our expertise and technologies with customers, and we will support virtual sessions using the Collaboration lab. With Collaboration labs already in use at other Stepan sites, we know that virtual demonstrations provided by our in-house experts and working sessions to address challenging questions are additional tools that help foster the customer relationships we value. In 2020, Stepan utilized these virtual meetings to offer assistance to our customers in numerous areas including application and development support, process development, and regulatory support.

Stepan values the opportunity to engage with our industry colleagues. Through our internal and external speaker series, which we held virtually during the pandemic, we enjoy learning about current research initiatives, exploring opportunities and challenges, and discussing new technologies that can shape and inform our work.



Stepan's Agricultural Innovation Center, Barrow County, Georgia

**HIGHLIGHTS**

- 35 end-use formulations expected to be effective against SARS-CoV-2, the virus that causes COVID-19
- Our Agricultural Innovation Center promotes customer collaboration/reduced environmental impact with over 48,000 sq ft of native plants; collection and reuse of rainwater; and 10 KW solar panels offsetting ~10% of the total building energy load
- Stepan's recent acquisitions will expand our ability to deliver products with sustainability benefits





SDG 3

SDG 8

SDG 9

# Investing in People

## OUR COMMITMENT

Stepan is proud of the dedication and professionalism our employees bring to work every day and we know that our workforce is our greatest strength. Our organizational goals for employees are to protect their safety and well-being; to provide opportunities for professional growth and development; and to create a workplace environment and benefits program that fosters a sense of belonging, security, and well-being. Stepan engages with our communities with similar commitments to safety and security, and with a goal of being a valued community partner.

## OUR APPROACH

Supporting the health and safety of our employees has always been a key priority for Stepan, and during the pandemic this was even more critical. Over the course of the year we established added processes and procedures so that we could continue our work as an essential business, while protecting our employees and their families. In addition to our focus on employee health and safety, we work to provide ample career development opportunities, competitive compensation and benefits, and a positive and safe working environment.

**Stepan is proud of the dedication and professionalism our employees bring to work every day and we know that our workforce is our greatest strength.**

During 2020, we launched two new internal platforms—Success Factors and Reactions—aimed at strengthening the access employees have to career development and skills training, and also providing a mechanism for recognizing fellow employees for their positive contributions and achievements.

Our Human Resources (HR) and Health and Safety teams work diligently to create a workplace that is built on respect and nurtures collaboration. Stepan works to solicit feedback from our employees with an employee satisfaction survey. Additionally, Stepan continues to administer the National Safety Council's Occupational Safety Climate Assessment Report (OSCAR) every 3 to 4 years, providing an opportunity for employees to offer insights into our safety culture, leadership, and process safety management. Corporate leadership and site managers use the results of these surveys to identify needs and develop improvement plans.



## COVID-19 Response

As described previously, Stepan's response to the COVID-19 pandemic was key for ensuring the safety of our workers and mitigating transmission of the disease. Stepan leveraged our existing safety culture to drive process and protocol changes related to COVID-19, including limiting access to sites to only essential workers and instituting enhanced safety procedures. These and other measures helped facilitate continued operations and delivery of critical products to our customers.

Stepan's HR team and executive leadership team provided regular updates to employees on safety policies and procedures that were revised in accordance with guidance from the U.S. Centers for Disease Control and Prevention and the World Health Organization both on a global and regional basis. Stepan implemented its global Crisis Management Team who worked in partnership with regional crisis teams and employee representatives to ensure all decisions regarding employee health, safety, and security were effectively managed at all our locations. Additionally, the HR team managed the COVID-19 restrictions imposed by all countries, kept employees informed, and assisted employees and their families to ensure their safety and security.

To the extent possible, Stepan transitioned to a virtual work environment to protect the health and safety of our employees. The launch of remote-work technology across our global footprint allowed us to continue collaborating with our coworkers in real time, while engaging with and serving our customers as effectively as ever.



Ginger Ren, Senior Research Chemist; Bruce Horne, Research Associate Demulsifier SME

## Employee Safety

Initiatives such as our STEMS rollout, SafeStart®, Safe Journey, and our employee surveys have helped us better track and measure employee health and safety performance. Stepan initiated the SafeStart® program at our Millsdale site in 2014. Since then, Stepan has expanded the SafeStart® program to include 16 manufacturing facilities and there are eight SafeStart®-certified, in-house trainers who help implement safety practices. Implementation of the SafeStart® safety process at our sites was one of the many safety improvement initiatives that the company implemented to achieve a 46% reduction in the reported global recordable injury rate from 2014 to 2020.

As part of our efforts to promote employee safety, we initiated new, and enhanced our existing, programs aimed at driving improvement. We introduced global monthly comprehensive performance reviews at all sites with a focus on sharing and learning from incidents and existing good practices. These reviews offer an opportunity to identify risks, implement corrective actions, and highlight best practices. The goal is to celebrate employees who bring forward good ideas and cascade these learnings throughout the Company.

## Employee Training and Development

Stepan works to provide employees with opportunities for professional development and training on essential skills for success at the Company. In 2020, Stepan launched the Success Factors platform, a suite of tools and resources that will be available to all employees and will enable us to better serve their learning needs. Training and onboarding for new hires is now done through Success Factors, and in the next phase of our rollout we plan to launch training programs and performance management for existing employees. We also partnered with an external platform to give employees access to a broad suite of professional development and skills development courses.

Stepan is proud of our Leadership Development Program and Emerging Leaders Program that recognize high potential employees and help them advance their careers. The Stepan Emerging Leaders Program (ELP) was designed to develop a pipeline of future leadership talent, and participants include employees that have been identified as exhibiting emerging leadership skills. The 2020 ELP had 23 global participants. This was the first leadership cohort for which participation was 100% virtual (due to the pandemic). This group of participants showed flexibility, adaptability, and resilience with their dedication and commitment to the nine-month program. In addition to a focus on developing a pipeline for future leaders at the Company, the ELP program aims for program graduates to embody Stepan's values as well as recognized leadership characteristics; to be better equipped to contribute to the Company's key strategies through their broadened perspective; and to have a cross-functional network of relationships that will support an enterprise mindset. In addition to Stepan's corporate employee development programs, our different regions have their own initiatives to prepare new leaders and to develop mid-level management teams according to local business needs.



## Employee Well-Being

Stepan works to create a workplace environment that supports the well-being of our employees, including benefits packages that provide security and support for health and wellness of employees and their families. Over 75% of Stepan's global employees are eligible for an annual profit-sharing contribution, aligning employee financial rewards with profitable Company growth. During the pandemic, additional resources and benefits were implemented to help employees dealing with physical and mental health challenges. Beginning in late March, 2020, we offered up to 80 hours of paid sick leave for any employee diagnosed with COVID-19 or having a family member with the disease, and these benefits have been extended through 2021. Stepan's Return to Workplace Policy defined additional safety protocols and mandatory training to mitigate risks from COVID-19 as employees returned to on-site working.

## Reactions, our peer-to-peer recognition program, acknowledges the personal and professional achievements of our colleagues.

Stepan works to facilitate open communications with employees. In 2020, we conducted two pulse surveys to get insights and input from employees especially during the most critical times of the pandemic. To obtain regular employee feedback and further develop improvement plans, we have launched a new employee engagement survey, which will become an annual initiative. Town hall meetings are another important mechanism for providing updates and progress reports to all employees, and during the peak of the pandemic, weekly communications from Stepan's leadership team were key for maintaining Company morale and outlining the path forward. Throughout the year, our HR teams also held many virtual gatherings and social events, reaching employees across regions to promote connections and reinforce the sense of belonging and well-being.

To further support our employees and celebrate their success, we introduced the Reactions Program in May 2020. Reactions is a peer-to-peer recognition program to acknowledge the contributions of colleagues, achievements at work, service milestone awards, as well as life events. The platform fosters engagement and brings coworkers from around the world together to share these events. Since the launch of Reactions, over 65% of employees have received a recognition from a colleague. This was especially important to many of the employees during the challenging months throughout the pandemic. Reactions had a positive impact on the morale and productivity throughout Stepan and enabled everyone to see the great work being done by individuals in the Company, as well as celebrate their achievements. The points awarded through Reactions can be redeemed in an online marketplace for a variety of merchandise and gift cards or donated to a charity of the employee's choice. It is exciting to see this type of employee engagement within the Reactions program and we look forward to celebrating more recognition moments among our colleagues.

We also understand the importance of providing additional support and resources for underrepresented employee groups. We have outlined plans to launch an Inclusion Council, comprised of leaders for women, LGBTQ+ Allies, and people of color networks. We also updated our Human Rights and Inclusion and Diversity policies in 2020 to better reflect Stepan's values.



Annabelle Chieh, Consumer Chemist





Hector Ortiz, Sales Director, Global Consumer Products; Erik Bakkers, Mike Maretich, Director, Sales and Marketing Skills; Emmanuel Boyer Director, Business Management EU; Aneta Janiak, EU Polymer Marketing  
Front: Karl Hipchen, Key Account Manager, Lamination

## Community Connections

While the pandemic prevented many in-person initiatives, Stepan employees found ways to give back in support of needs in our communities of operation. Across our sites, employees generously give their time and expertise to add value to the local community. Stepan employees provide long-term engagement with numerous programs promoting Science, Technology, Engineering, and Math (STEM) education, as well as environmental restoration and clean-up.

We also support community needs through volunteer work, fundraising, mentoring, and donations. Some highlights from this past year include Stepan's donation of ready-to-use sanitation and cleaning products, as well as donations of PPE to local first responders when supplies for such items were unavailable or in limited supply due to the pandemic. Stepan donated to families impacted by the Taal Volcano eruption in the Philippines in early 2020. Employees in Stepan's Mercosur region, U.S., and European sites partnered with local organizations to collect and donate food, clothing, toys, and basic hygiene items to help people living in poverty. Our employees found ways to continue engaging with local schools to support educational needs, including developing a modified educational program to support our long-term partnership with Teach for America.

Stepan maintained our financial commitments to current community partners. In addition, we contributed to new organizations to help those most in need. We partnered with an organization focused on improving access to water, sanitation, and hygiene for the world's most at-risk people, benefitting thousands. Stepan is also proud to be sponsoring students through the Future of STEM Scholars Initiative (FOSSI). FOSSI is a U.S. program that provides scholarships and other opportunities to students pursuing degrees in STEM subjects at historically black colleges and universities.

## HIGHLIGHTS

- 46% reduction in the reported global recordable injury rate from 2014 to 2020
- Reactions Program: 65% of employees receiving a recognition through this program, promoting internal community spirit during a challenging year
- Donations of ready-to-use products and PPE for first responders in different regions
- Over 75% of Stepan's global employees eligible for annual profit-sharing contribution, aligning employee financial rewards with profitable Company growth
- Added health and medical programs to support employee physical, social and mental well-being, including free and confidential counseling



# GRI Content Index

Global Reporting Initiative (GRI) and Sustainability Accounting Standards Board (SASB)

Red type denotes hyperlinks

## GENERAL DISCLOSURES

GRI STANDARD	DISCLOSURE	DESCRIPTION	LOCATION OR DIRECT ANSWER	PAGE #
Organizational Profile				
GRI 102: General Disclosures 2016	102-1	Name of the organization	Stepan Company	
	102-2	Activities, brands, products, and services	About Stepan	3
			About Stepan / 2019 Sustainability Report	
	102-3	Location of headquarters	About Stepan	3
	102-4	Locations of operations	About Stepan	3
	102-5	Ownership and legal form	Stepan 2020 Form 10-K, Item 1	3
	102-6	Markets served	Stepan 2020 Form 10-K, Item 1	3
			Stepan Corporate Website / Markets	
	102-7	Scale of the organization	Stepan 2020 Form 10-K, Item 1	3
	102-9	Supply Chain	Responsible Practices — Third-Party Partnerships	
			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 Northfield, Illinois, Stepan utilizes a network of modern production facilities located in North and South America, Europe and Asia.	13



# GENERAL DISCLOSURES

GRI STANDARD	DISCLOSURE	DESCRIPTION	LOCATION OR DIRECT ANSWER	PAGE #
Organizational Profile				
	102-11	Precautionary Principle or approach	Stepan Code of Conduct	
			Sustainability at Stepan / Voluntary Accountability Frameworks	4
	102-12	External initiatives	Global Reporting Initiative Sustainability Accounting Standards Board	
	102-13	Membership of associations	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.	
Strategy				
	102-14	Statement from senior decision-maker	Message from the CEO	2
			Sustainability at Stepan / Stakeholder Engagement and Materiality; Sustainability Priorities	4–5
	102-15	Key impacts, risks, and opportunities	Stepan 2020 Form 10-K, Item 1A, (Risk Factors)	7–16
Ethics and Integrity				
	102-16	Values, principles, standards, and norms of behavior	Stepan Corporate Website / About Us / Our Values	
			Governance	3
			Sustainability at Stepan / Voluntary Accountability Frameworks	7
			Responsible Practices	9
	102-17	Mechanisms for advice and concerns about ethics	Stepan Code of Conduct	
			Stepan Code of Conduct	
			An anonymous reporting mechanism can be accessed online via the Company’s helpline and by phone in 12 countries.	



GENERAL DISCLOSURES

GRI STANDARD	DISCLOSURE	DESCRIPTION	LOCATION OR DIRECT ANSWER	PAGE #
Governance				
	102-18	Governance structure	Governance Stepan Corporate Website / Corporate Governance	3
	102-19	Delegating authority	Sustainability at Stepan / Our Approach	4
	102-20	Executive-level responsibility for economic, environmental, and social topics	Sustainability at Stepan / Our Approach	4
	102-22	Composition of the highest governance body and its committees	Stepan 2021 Proxy Statement	3–6, 12–13
	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	
	102-26	Roles of highest governance body in setting purpose, values and strategy	Governance Stepan Corporate Website / Corporate Governance Guidelines	3
	102-27	Collective knowledge of highest governance body	Sustainability at Stepan	4
	102-28	Evaluating the highest governance body’s performance	Stepan Corporate Website / Corporate Governance Guidelines	
	102-29	Identifying and managing economic, environmental, and social impacts	Sustainability at Stepan	4
	102-30	Effectiveness of risk management processes	Responsible Practices / Ethics and Compliance / Enterprise Risk Management Stepan Corporate Website / Corporate Governance Guidelines	11
	102-31	Review of economic, environmental, and social topics	Sustainability at Stepan	4
	102-32	Highest governance body’s role in sustainability reporting	Sustainability at Stepan	4
	102-33	Communicating critical concerns	Stepan Code of Conduct	
	102-35	Remuneration policies	Stepan 2021 Proxy Statement	18–48
	102-36	Process for determining remuneration	Stepan 2021 Proxy Statement	20–21
	102-37	Stakeholders’ involvement in remuneration	Stepan 2021 Proxy Statement	21
	102-38	Annual total compensation ratio	Stepan 2021 Proxy Statement	44



# GENERAL DISCLOSURES

GRI STANDARD	DISCLOSURE	DESCRIPTION	LOCATION OR DIRECT ANSWER	PAGE #
Stakeholder Engagement				
	102-40	List of stakeholder groups	Sustainability at Stepan / Stakeholder Engagement and Materiality 2019 Sustainability Report	4
	102-41	Formal collective agreements concerning working conditions Collective bargaining agreements and European Works Councils	Analyst Download	
	102-42	Identifying and selecting stakeholders	Sustainability at Stepan / Stakeholder Engagement and Materiality	4
	102-43	Approach to stakeholder engagement	Sustainability at Stepan / Stakeholder Engagement and Materiality	4
	102-44	Key topics and concerns raised	Sustainability at Stepan / Stakeholder Engagement and Materiality; Sustainability Priorities	4–5
Reporting Practices				
	102-45	Entities included in the consolidated financial statements	Stepan 2020 Form 10-K, Item 7	21–24
			About This Report	7
	102-46	Defining report content and topic Boundaries	Sustainability at Stepan / Stakeholder Engagement and Materiality; Sustainability Priorities	4–5
	102-47	List of material topics	Sustainability at Stepan / Sustainability Priorities	5
	102-48	Restatements of information	Analyst Download	
	102-50	Reporting period	About This Report	8
	102-51	Date of most recent report	March 2020	
	102-52	Reporting cycle	About This Report	8
	102-53	Contact point for questions regarding the report	About This Report	8
	102-54	Claims of reporting in accordance with the GRI Standards	About This Report	8
	102-55	GRI content index	GRI Content Index	25
	102-56	External assurance	Data assurance has been provided for Scope 1 and Scope 2 greenhouse gas emissions and for energy consumption	



TOPIC SPECIFIC DISCLOSURES

GRI STANDARD	DISCLOSURE	DESCRIPTION	LOCATION OR DIRECT ANSWER	PAGE #
ECONOMIC				
Anti-Corruption				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Boundary: Internal, All Operations; External, Supply Chain	
			Responsible Practices / Our Commitment	9
			Responsible Practices / Our Approach / Ethics and Compliance	10–11
			Responsible Practices / Third-Party Partnerships	13
	103-2	The management approach and its components	Stepan Code of Conduct	
			Responsible Practices / Our Approach / Ethics and Compliance	9–10
			Responsible Practices / Third-Party Partnerships	13
			Analyst Download	
	103-3	Evaluation of the management approach	Stepan Code of Conduct	
			Stepan Third Party Code of Conduct	
			Responsible Practices / Our Approach / Ethics and Compliance	9–10
			Responsible Practices / Third-Party Partnerships	13
GRI 205: Anti-Corruption 2016	205-1	Operations assessed for risks related to corruption	Analyst Download	
	205-2	Communication and training about anti-corruption policies and procedures	Responsible Practices / Ethics and Compliance	11
			Responsible Practices / Third-Party Partnerships	13
			Analyst Download	
			Stepan Code of Conduct	
			Stepan Third Party Code of Conduct	



TOPIC SPECIFIC DISCLOSURES

GRI STANDARD	DISCLOSURE	DESCRIPTION	LOCATION OR DIRECT ANSWER	PAGE #
ENVIRONMENTAL				
Energy				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Boundary: Internal, All Operations Efficiency for the Planet / Our Commitment Efficiency for the Planet / Our Approach / Operations Management; Energy	14–15
	103-2	The management approach and its components	Efficiency for the Planet / Our Approach / Operations Management; Energy	14–15
	103-3	Evaluation of the management approach	Efficiency for the Planet / Our Approach / Operations Management; Energy	14–15
GRI 302: Energy 2016	302-1	Energy consumption within the organization	Analyst Download	
	302-3	Energy intensity	Analyst Download	
	302-4	Reduction of energy consumption	Efficiency for the Planet / Energy	14
Water				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Boundary: Internal, All Operations Efficiency for the Planet / Our Commitment Efficiency for the Planet / Our Approach / Operations Management; Water Use In addition to water being used as an important ingredient in many of our products, Stepan utilizes water resources for steam heat in production process, industrial process cooling, and cleaning production equipment across our manufacturing facilities globally.	14, 16
	103-2	The management approach and its components	Efficiency for the Planet / Our Approach / Operations Management; Water Use Stepan has conducted water risk assessments for all our sites and will use this information to develop management plans.	14, 16
	103-3	Evaluation of the management approach	Efficiency for the Planet / Our Approach / Operations Management; Water Use	14, 16



TOPIC SPECIFIC DISCLOSURES

GRI STANDARD	DISCLOSURE	DESCRIPTION	LOCATION OR DIRECT ANSWER	PAGE #
GRI 303: Water and Effluents 2018	303-1	Interactions with water as a shared resource	Efficiency for the Planet / Our Approach / Water Use	14, 16
	303-2	Management of water discharge-related impacts	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.	
	303-3	Water withdrawal	Analyst Download	
	303-4	Water discharge	Analyst Download	
	303-5	Water consumption	Analyst Download	
Emissions				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Boundary: Internal, All Operations Efficiency for the Planet / Our Commitment Efficiency for the Planet / Our Approach / Operations Management; Emissions	14–15
	103-2	The management approach and its components	Efficiency for the Planet / Our Approach / Operations Management; Emissions	14–15
	103-3	Evaluation of the management approach	Efficiency for the Planet / Our Approach / Operations Management; Emissions	14–15
GRI 305: Emissions 2016	305-1	Direct (Scope 1) GHG emissions	Analyst Download	
	305-2	Energy indirect (Scope 2) GHG emissions	Efficiency for the Planet / Our Approach / Emissions Analyst Download	14–15
	305-4	GHG emissions intensity	Analyst Download	
	305-5	Reduction of GHG emissions	Efficiency for the Planet / Our Approach / Emissions Analyst Download	14–15
	305-6	Fugitive Emissions from substances with high Global Warming Potential	1% of of Scope 1 Emissions	
	305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	Analyst Download	



TOPIC SPECIFIC DISCLOSURES

GRI STANDARD	DISCLOSURE	DESCRIPTION	LOCATION OR DIRECT ANSWER	PAGE #
Waste				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Boundary: Internal, All Operations Efficiency for the Planet / Our Commitment	14
			Efficiency for the Planet / Our Approach / Operations Management; Waste Reduction	14, 17
	103-2	The management approach and its components	Efficiency for the Planet / Our Approach / Operations Management; Waste Reduction	14, 17
	103-3	Evaluation of the management approach	Efficiency for the Planet / Our Approach / Operations Management; Waste Reduction	14, 17
GRI 306: Effluents and Waste 2016	306-3	Significant spills	Analyst Download	
	306-4	Transport of hazardous waste	Analyst Download	
GRI 306: Waste 2020	306-1	Waste generation and significant waste-related impacts	Efficiency for the Planet / Our Approach / Operations Management; Waste Reduction Analyst Download	14, 17
	306-2	Management of significant waste-related impacts	Efficiency for the Planet / Our Approach / Operations Management; Waste Reduction Analyst Download	14, 17
	306-3	Waste generated	Analyst Download	
	306-4	Waste diverted from disposal	Efficiency for the Planet / Our Approach / Operations Management; Waste Reduction Analyst Download	14, 17
	306-5	Waste directed to disposal	Analyst Download	



TOPIC SPECIFIC DISCLOSURES

GRI STANDARD	DISCLOSURE	DESCRIPTION	LOCATION OR DIRECT ANSWER	PAGE #
Environmental Compliance				
GRI 103: Management Approach 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	Responsible Practices—Product Stewardship and Compliance Efficiency for the Planet / Our Approach / Operations Management	10, 13
	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.	
GRI 307: Environmental Compliance 2016	307-1	Non-compliance with environmental laws and regulations	Seven Notice of Violations in 2020 with none of them resulting in significant fines.	
Supplier Environmental Assessment				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Boundary: Internal, All Operations; External, Supply Chain	
			Responsible Practices / Our Commitment	9
			Responsible Practices / Our Approach / Third-Party Partnerships	9–13
	103-2	The management approach and its components	Responsible Practices / Our Approach / Third-Party Partnerships	9–13
	103-3	Evaluation of the management approach	Responsible Practices / Our Approach / Third-Party Partnerships	9–13
GRI 308: Supplier Environmental Assessment	308-1	New suppliers that were screened using environmental criteria	Responsible Practices / Our Approach / Third-Party Partnerships Analyst Download	9–13



TOPIC SPECIFIC DISCLOSURES

GRI STANDARD	DISCLOSURE	DESCRIPTION	LOCATION OR DIRECT ANSWER	PAGE #
SOCIAL				
Employment				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Boundary: Internal, All Operations Investing in People / Our Commitment	21
			Investing in People / Our Approach / Employee Well-Being	21–22
	103-2	The management approach and its components	Investing in People / Our Approach / Employee Well-Being	21–22
	103-3	Evaluation of the management approach	Investing in People / Our Approach / Employee Well-Being	21–22
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	Investing in People / Our Approach / Employee Well-Being	21–22
Occupational Health and Safety				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Boundary: Internal, All Operations	
			Responsible Practices / Our Commitment	8
			Responsible Practices / Our Approach / Employee Safety and Health	9
			Investing in People / Our Commitment	20
			Investing in People / Our Approach / Employee Safety	20–21
	103-2	The management approach and its components	Responsible Practices / Our Approach / Employee Safety and Health Investing in People / Our Approach / Employee Safety	9, 20–21
	103-3	Evaluation of the management approach	Responsible Practices / Our Approach / Employee Safety and Health Investing in People / Our Approach / Employee Safety	9, 20–21



TOPIC SPECIFIC DISCLOSURES

GRI STANDARD	DISCLOSURE	DESCRIPTION	LOCATION OR DIRECT ANSWER	PAGE #
GRI 403: Occupational Health and Safety 2018	403-1	Worker participation, consultation, and communication on occupational health and safety	Approximately 38% 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 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, a new employee engagement survey was conducted in 2020 and is expected to be an annual initiative. Issues of concern are identified across our sites and 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	<a href="#">Investing in People / Our Approach</a> Approximately 38% 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 helpline, the annual employee engagement survey, and participation in the National Safety Council Occupational Safety Climate Assessment Report (OSCAR) survey.	20
	403-5	Worker training on occupational health and safety	<a href="#">Investing in People / Our Approach / Employee Safety</a>	21
	403-6	Promotion of worker health	<a href="#">Investing in People / Our Approach / Employee Well-Being</a>	20, 22
	403-8	Workers covered by an occupational health and safety management system	<a href="#">Analyst Download</a>	
	403-9	Work-related injuries	<a href="#">Analyst Download</a>	
	403-10	Work-related ill health	<a href="#">Analyst Download</a>	



TOPIC SPECIFIC DISCLOSURES

GRI STANDARD	DISCLOSURE	DESCRIPTION	LOCATION OR DIRECT ANSWER	PAGE #
Training and Education				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Boundary: Internal, All Operations Investing in People / Our Commitment Investing in People / Our Approach / Employee Training and Development	21, 22
	103-2	The management approach and its components	Investing in People / Our Approach / Employee Training and Development	22
	103-3	Evaluation of the management approach	Investing in People / Our Approach / Employee Training and Development	22
GRI 404: Training and Education 2016	404-2	Programs for upgrading employee skills and transition assistance programs	Investing in People / Our Approach / Employee Training and Development	22
	404-3	Percentage of employees receiving regular performance and career development reviews	Analyst Download	
Local Communities				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Boundary: External, Communities where we operate Investing in People / Our Commitment	21
			Investing in People / Our Approach / Community Connections	24
	103-2	The management approach and its components	Investing in People / Our Approach / Community Connections	20, 24
	103-3	Evaluation of the management approach	Investing in People / Our Approach / Community Connections	20, 24
GRI 413: Local Communities 2016	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 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 SafeStart® 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.	

TOPIC SPECIFIC DISCLOSURES

GRI STANDARD	DISCLOSURE	DESCRIPTION	LOCATION OR DIRECT ANSWER	PAGE #
Supplier Social Assessment				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Boundary: External, Supply Chain Responsible Practices / Our Commitment	9
			Responsible Practices / Our Approach / Third-Party Partnerships	13
	103-2	The management approach and its components	Responsible Practices / Our Approach / Third-Party Partnerships	13
	103-3	Evaluation of the management approach	Responsible Practices / Our Approach / Third-Party Partnerships	13
GRI 414: Supplier Social Assessment	414-1	New suppliers that were screened using social criteria	Responsible Practices / Our Approach / Third-Party Partnerships Analyst Download	13
Customer Health and Safety				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Boundary: Internal, All Operations; External, Customers	
			Responsible Practices / Our Commitment	9
			Responsible Practices / Our Approach / Product Stewardship and Compliance	9–11
			Advantageous Products / Our Commitment	18
	103-2	The management approach and its components	Advantageous Products / Our Approach / A Diverse Product Portfolio to Benefit People and the Environment	18
			Responsible Practices / Our Approach / Product Stewardship and Compliance	9–11
			Advantageous Products / Our Approach / A Diverse Product Portfolio to Benefit People and the Environmentand the Environment	18
			Responsible Practices / Our Approach / Product Stewardship and Compliance	9–11
	103-3	Evaluation of the management approach	Advantageous Products / Our Approach / A Diverse Product Portfolio to Benefit People and the Environment	18



TOPIC SPECIFIC DISCLOSURES

GRI STANDARD	DISCLOSURE	DESCRIPTION	LOCATION OR DIRECT ANSWER	PAGE #
GRI 416: Customer Health and Safety	416-1	Assessment of the health and safety impacts of product and service categories	Responsible Practices / Our Approach / Product Stewardship and Compliance	9–11
			Advantageous Products / Our Approach / A Diverse Product Portfolio to Benefit People and the Environment	18
			Analyst Download	
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Analyst Download	
Marketing and Labeling				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Boundary: Internal, All Operations; External, Customers	
			Responsible Practices / Our Commitment	9
			Responsible Practices / Our Approach / Product Stewardship and Compliance	9–11
	103-2	The management approach and its components	Responsible Practices / Our Approach / Product Stewardship and Compliance	9–11
	103-3	Evaluation of the management approach	Responsible Practices / Our Approach / Product Stewardship and Compliance	9–11
GRI 417: Marketing and Labeling 2016	417-2	Incidents of non-compliance concerning product and service information and labeling	Analyst Download	
	417-3	Incidents of non-compliance concerning marketing communications	Analyst Download	

SASB INDEX

TOPIC	CODE	ACCOUNTING METRIC	LOCATION OR DIRECT ANSWER	PAGE #
GHG Emissions	RT-CH-110a.1	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulation (Metric tons (t) CO <sub>2</sub> -e, Percentage (13%))	Analyst Download	14–15
	RT-CH-110a.2	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	Efficiency for the Planet / Our Approach / Emissions 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.	
Air Quality	RT-CH-120a.1	Air emissions of the following pollutants: (1) NOX (excluding N2O) (52 metric tons), (2) SOX (39 metric tons), (3) volatile organic compounds (VOCs) (259 metric tons), and (4) hazardous air pollutants (HAPs) (7.36 metric tons)	Analyst Download	
Energy Management	RT-CH-130a.1	Percentage of energy that is grid electricity, renewable, and self-generated (GJ and %)	Analyst Download	
Water Management	RT-CH-140a.1	(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 (%))	Analyst Download	
	RT-CH-140a.2	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	Analyst Download	
	RT-CH-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks	Efficiency for the Planet / Our Approach / Water Use	14, 16
Hazardous Waste Management	RT-CH-150a.1	Amount of hazardous waste generated, percentage recycled	Analyst Download	
Community Relations	RT-CH-210a.1	Discussion of engagement processes to manage risks and opportunities associated with community interests	Investing in People / Our Approach / Community Connections	21, 24
			Efficiency for the Planet / Our Approach / Water Use	14, 16
			2019 Sustainability Report	



SASB INDEX

TOPIC	CODE	ACCOUNTING METRIC	LOCATION OR DIRECT ANSWER	PAGE #
Workforce Health and Safety	RT-CH-320a.1	(1) Total recordable incident rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees	<a href="#">Analyst Download</a>	10
	RT-CH-320a.2	Description of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks	<a href="#">Responsible Practices / Our Approach / Employee Safety and Health</a> 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.	
Safety and Environmental Stewardship of Chemicals	RT-CH-410b.1	(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	<a href="#">Analyst Download</a> 5.4% of Stepan manufactured substances are classified as “high priority” chemicals according to the Stepan Responsible Care Management System that utilizes GHS and other national and international standards and regulations. 100% of Stepan’s ‘high-priority’ chemicals have Product Stewardship summaries prepared and publicly available on the company website.	9–11
			<a href="#">Responsible Practices / Our Approach / Product Stewardship and Compliance</a>	
	RT-CH-410b.2	Discussion of strategy to (1) manage chemicals of concern and (2) develop alternatives with reduced human and/or environmental impact	<a href="#">Advantageous Products / Our Approach / A Diverse Product Portfolio to Benefit People and the Environment; Bringing Science to Sustainability through Collaboration and Innovation</a> <a href="#">Advantageous Products / Our Approach / A Diverse Product Portfolio to Benefit People and the Environment; Bringing Science to Sustainability through Collaboration and Innovation</a> 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 the 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. Product stewardship summaries have been completed for those chemicals identified as being a high priority according to national and/or international regulation.	18–20

SASB INDEX

TOPIC	CODE	ACCOUNTING METRIC	LOCATION OR DIRECT ANSWER	PAGE #
Product Environmental, Health, and Safety Performance	CG-HP-250a.3	Discussion of process to identify and manage emerging materials and chemicals of concern	Responsible Practices—Product Stewardship and Compliance Advantageous Products	9, 18
Management of the Legal & Regulatory Environment	RT-CH-530a.1	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	Responsible Practices	9
			Efficiency for the Planet	14
			Advantageous Products	18
			Stepan 2020 Form 10-K, Item 1A	7–16
Environmental & Social Impacts of Palm Oil Supply Chain	CG-HP-430a.1	Amount of palm oil sourced, percentage certified through the Roundtable on Sustainable Palm Oil (RSPO) supply chains as (a) Identity Preserved, (b) Segregated, (c) Mass Balance, or (d) Book & Claim (Metric tons (t), Percentage (%))	Amount of palm oil sourced and certified: 143,000 MT; 27% RSPO-certified at mass-balance level.	
Operational Safety, Emergency Preparedness & Response	RT-CH-540a.1	Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), and Process Safety Incident Severity Rate (PSISR)	Analyst Download	
	RT-CH-540a.2	Number of transport incidents	Analyst Download	
Activity Metric	RT-CH-000.A	Production by reportable segment	Analyst Download	

This report contains forward-looking statements that are based on Stepan's current assumptions and expectations, including statements regarding our sustainability targets, goals, commitments and programs and other business plans, initiatives and objectives. In some cases, forward-looking statements can be identified by the use of words such as “expect,” “intend,” “plan,” “seek,” “estimate,” “potential,” “continue,” “will,” “should,” “goal” and variations of these terms and similar expressions. Stepan’s actual future results, including the achievement of our targets, goals or commitments, could differ materially from our projected results as the result of changes in circumstances, assumptions not being realized, or other risks and uncertainties. Such risks and uncertainties include, without limitation, those described in Stepan’s Form 10-K, Form 10-Q and Form 8-K reports filed with the Securities and Exchange Commission. The forward-looking statements in this report are made as of the date of this report, and Stepan assumes no obligation to update any forward-looking statement, including financial estimates and forecasts, whether as a result of future events, circumstances or developments or otherwise.



# 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 2020 Greenhouse Gas (GHG) and energy data in its 2020 Sustainability Report, ESG Analyst Download, and 2021 CDP Climate Change questionnaire, as set out below.

Engagement summary	
Scope of our assurance engagement	Whether the corporate 2020 GHG and energy data for the following selected indicators are fairly presented, in all material respects, in accordance with the reporting criteria: <ul style="list-style-type: none"><li>• Scope 1 GHG Emissions (metric kilotons CO<sub>2</sub>-e)</li><li>• Scope 2 GHG Emissions, location and market-based (metric kilotons CO<sub>2</sub>-e)</li><li>• Total Scope 1 and 2 GHG Emissions (metric kilotons CO<sub>2</sub>-e)</li><li>• Total Energy Consumed (1000 Terajoules)</li></ul>
Reporting criteria	WBCSD/WRI GHG Protocol (2004, as updated January 2015) and Stepan's internal corporate guidance
Assurance standard	ERM CVS' assurance methodology, based on the International Standard on Assurance Engagements ISAE 3000 (Revised).
Assurance level	Limited assurance.
Respective responsibilities	Stepan is responsible for preparing the data and for its correct presentation in the Report to third parties, including disclosure of the reporting criteria and boundary.  ERM CVS's responsibility is to provide conclusions on the agreed scope based on the assurance activities performed and exercising our professional judgement.

## Our conclusions

Based on our activities, nothing has come to our attention to indicate that the corporate 2020 GHG and energy data for the selected indicators listed above and reported in Stepan's 2020 Sustainability Report, ESG Analyst Download, and 2021 CDP Climate Change questionnaire 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 four sites (Stalybridge, UK; Fieldsboro, USA; Nanjing, China; and Bouan, Philippines) 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.

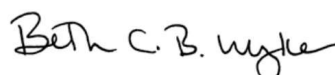
## The limitations of our engagement

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 observations

We have provided Stepan with a separate management report. Without affecting the conclusions presented above, we have the following observation: we recommend attention is given during 2020 to improve data collection for refrigerant losses.



Beth Wyke  
Global Head of Corporate Assurance  
21 May 2021

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**Stepan**

