Stepan

2024 ESG ANALYST DOWNLOAD

The data in these tables provide summary information regarding Stepan's ESG performance. Additional context is provided in our 2024 Sustainability Report.
For more details, please find our Basis of Reporting Document.

	2017	2018	2019	2020	2021	2022	2023	2024
Economic								
Financial								
Net sales (in thousands)	1,925,007	1,993,857	1,858,745	1,869,750	2,345,966	2,773,270	2,325,768	2,180,300
Net sales segment results—surfactants (in thousands)	1,297,555	1,385,932	1,272,723	1,351,686	1,562,795	1,882,745	1,602,819	1,532,115
Net sales segment results—polymers (in thousands)	546,634	527,420	512,347	452,277	713,440	789,080	642,471	584,905
Net sales segment results—specialty products (in thousands)	80,818	80,505	73,675	65,787	69,731	101,445	80,478	63,254
Gross profit (in thousands)	346,167	339,349	339,714	383,613	395,810	427,069	277,598	272,200
Operating income (in thousands)	154,840	149,265	127,260	171,522	170,781	207,336	58,613	70,500
Net income attributable to Stepan Company (in thousands)	100,774	111,117	103,129	126,770	137,804	147,153	40,204	50,370
Total assets (in thousands)	1,502,892	1,514,614	1,579,367	1,752,336	2,065,612	2,433,172	2,363,354	2,304,648
Environmental								
Energy, GHG, and Other Air Emissions								
Scope 1 GHG emissions (kilotons CO_2e)	139.58	143.46	145.28	141.09[1]	175.58[1][2]	185.91[2]	184.05[3]	192.53[3]
Scope 2 GHG emissions—market based (kilotons CO_2e)	134.80	137.54	134.24	87.40	78.48[2]	61.74[2]	62.93[2]	60.9[2]
Scope 2 GHG emissions—location based (kilotons CO_2e)	134.80	137.54	134.24	117.22	121.10[2]	110.23[2]	113.24[2]	115.17[2]

[1] This data has undergone external limited reassurance due to improved calculation of combustion emissions. Prior to 2021, combustion-related emissions were calculated based on stack-test data assuming maximum activity levels. Improved methods account for actual activity levels and more accurately capture emissions. Other factors contribute to increased Scope 1 emissions since 2020, including our expanded manufacturing footprint.

[2] This data has undergone external limited assurance.

[3] This data has undergone external limited assurance. We annually report our Scope 1 and 2 emissions to the ACC and to CDP, and this information, along with our energy consumption, is verified by an independent third party.

	2017	2018	2019	2020	2021	2022	2023	2024
Total Scope 1 and 2 GHG emissions—market based (kilotons CO_2e)	274.34	280.99	279.52	228.49	254.07	247.65[3]	246.98[3]	253.45[4]
Emissions intensity—market based (metric tons CO_2e per metric ton of throughput volume)[5]	0.124	0.120	0.124	0.098	0.108	0.110	0.126	0.134
Year-over-year reduction of GHG emissions[6]	1.5% decrease	2.4% increase	0.5% decrease	18.2% decrease	6.8% increase	1.5% increase	0.3% decrease	2.6% increase
Total energy consumed (1,000 terajoules)	2.68	2.63	2.79	2.89	3.75[3]	3.8[7]	3.9[8]	4.16[8]
Energy intensity (gigajoules per metric ton throughput volume)	1.20	1.10	1.20	1.20	1.50	1.90	2.00	2.20
Total Scope 1 energy consumed (1,000 terajoules)[9]							2.84	3.00
Total Scope 2 energy consumed (1,000 terajoules)[10]							1.04	1.15
Renewable energy usage (terajoules)							490	497
Emissions of ozone-depleting substances (ODS) (metric tons of CO_2)					359.00	359.00	1,719.00	568.83
Air emissions of NO_x (excluding N_2O) (metric tons)[11]				52.00	63.23	68.36	187.00	242.52
Air emissions of SO_x (metric tons)[11]				39.00	52.15	39.02	42.00	9.50
Air emissions of VOCs (metric tons)[11]				259.00	272.78	235.83	256.00	157.40
Air emissions of HAPs (metric tons)[11]				194.00	127.69	107.22	92.00	35.50
Percentage of gross global Scope 1 emissions covered under emissions-limiting regulations				13.0%	10.0%	10.0%	0.0%[12]	0.0%
Percentage of renewable electricity[13]				3.5%	40.0%	47.0%	52.0%	43.0%
Percentage of energy from grid electricity				30.0%	30.0%	28.0%	26.0%	26.0%
CDP climate disclosure score	D	D	B-	B-	C	B	B	B

[4] External limited assurance was conducted on individual Scope 1 and Scope 2 data. In 2024 we recognized a 10% reduction over our unadjusted 2016 baseline (not accounting for recent acquisitions), achieving our 2025 goal. Since initial reporting began, Stepan has improved emissions accounting and corrected original reports to include combustion and steam emissions that were not originally included. Stepan has also adjusted our 2016 base year to include newly acquired facilities. Against the adjusted 2016 baseline (281.2 kilotons), Stepan achieved just over 20% reduction in Scope 1 and 2 market based emissions. Stepan calculates GHG emissions following the GHG Protocol. Our emissions calculations include CO_2, CH_4, N_2O and refrigerants. Other gases represent de-minimis levels and are not separately accounted for.

[5] Shifts in intensity-based emissions reflect annual variability in production activity and other operational activities.

[6] Data presented shows year-over-year change in Market-Based Scope 1 and 2 emissions. 2024 emissions reduction over our base year are 22% and are calculated using an adjusted 2016 baseline to account for facility acquisitions.

[7] Adjusted due to accounting or conversion errors.

[8] This data has undergone external limited assurance. Energy consumption includes energy from biogenic sources in the amount of 7.9 terajoules.

[9] Intensity based Scope 1 energy consumed (Gigajoules/mt throughput volume)= 1.6. Stepan includes measures or estimates of natural gas, diesel, biodiesel, propane, petrol (gasoline) and number two fuel oil in our Scope 1 energy use calculation. Small quantities of other fuels (e.g., acetylene) are also included in the calculation. Stepan includes energy usage within the organizational boundaries for this metric.

[10] Intensity based Scope 2 energy consumed (Gigajoules/mt throughput volume)= 0.61. Stepan includes measures or estimates of electricity and purchased steam for our Scope 2 energy use calculation. Stepan includes energy usage within the organizational boundaries for this metric.

[11] Global manufacturing sites. U.S. EPA emission factors and standard methods are used to determine emissions from combustion-related activities across our sites.

[12] Updated in 2023 report to reflect sites covered only under regulations. Prior to 2023, reporting included sites paying national carbon taxes.

[13] Covered by Renewable Energy Certificates, Green Origin Certificates, Power Purchase Agreements and on-site solar power generation.

	2017	2018	2019	2020	2021	2022	2023	2024
Water								
Percentage of operations in regions of high or extremely high overall risk according to WRI Aqueduct Tool[14]	N/A	N/A	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%[2]
Total water consumed in Stepan products (1,000 megaliters)[15]	0.24	0.27	0.27	0.29	0.27	0.27	0.25	0.27[2]
Total freshwater withdrawn at manufacturing facilities (1,000 megaliters)[16]	4.46	3.99	4.40	3.89	3.97	5.02	4.79	4.62[2]
Freshwater use per unit production (megaliters per metric ton production)	0.0021	0.0017	0.0019	0.0017	0.0017	0.0022	0.0024	0.0024[2]
Total water discharged at manufacturing facilities (1,000 megaliters)	4.22	3.74	4.15	3.63	2.78	2.83	2.20	2.02[2]
Number of incidents resulting in non-compliance associated with water quality permits, standards, and regulations				12	19	14	6	9
Waste								
Hazardous waste generated (metric tons)[17]			13,471	10,629	22,117	16,729	17,055	13,774
Non-hazardous waste generated (metric tons)[18]			9,777	8,952	10,070	18,848	14,089	21,169
Percentage of hazardous waste recycled[19]			6.0%	7.4%	30.0%	27.0%	18.0%	32.0%
Percentage of non-hazardous waste recycled							19.0%	33.0%
Hazardous waste incineration with energy recovery (metric tons)							2,801	1,500
Non-hazardous waste incinerated with energy recovery (metric tons)							4,971	637
Hazardous waste incineration without energy recovery (metric tons)							7,639	8,200
Non-hazardous waste incinerated without energy recovery (metric tons)							1,699	90
Total waste diverted from disposal (metric tons)			11,427	9,203	14,493	13,664	9,478	9,642
Total waste directed to landfill (metric tons)			5,639	5,633	7,032	8,798	7,674	14,875

[14] This metric includes only those manufacturing sites ranked as "high" or "extremely high" overall risk according to WRI.

[15] Water consumed in Stepan products (1,000 megaliters), a. 265,331 cubic meters of water in Stepan Products, 265.3 megaliters of total water consumed (in products, evaporation, other removals or losses). b. 15.4 megaliters for total water consumption from all areas with water stress.

[16] a. 4,617.03 megaliters (4,617,026 cubic meters) total water withdrawn across all categories. Surface water: 1,167.7 megaliters, Groundwater: 2,466.8 megaliters, Third Party water: 982.5 megaliters. b. 265.5 megaliters and 265,542 cubic meters of total water withdrawn from high or extremely high water stressed areas, based on WRI Aqueduct water risk analysis. Surface water: 0 megaliters, Groundwater: 133.2 megaliters, Third Party water: 132.3 megaliters. Stepan's water usage increased in 2022 as a result of acquisitions that became operational. Absolute freshwater usage decreased by 43% for our sites in operation from 2016 to 2024. Water use includes water obtained from surface, ground, municipal and third-party sources for the purposes of cooling, cleaning, processing, and product manufacturing.

[17] Increase in waste in 2021 due to added remediation products, demolition and construction projects, expanded boundary to include chemical recycling, and scheduled clean-outs. Reporting since 2023 excludes demolition and construction projects for more consistent tracking over time.

[18] Increase in waste in 2021 due to capital projects and increased material disposal from obsolete waste and production equipment changes. Reporting since 2023 excludes demolition and construction projects for more consistent tracking over time.

[19] Waste data is collected and tracked for our global facilities using the STEMS data management system. Site personnel share data based on information from our waste management partners and other site measurements and is reviewed by a team based at Company headquarters.

	2017	2018	2019	2020	2021	2022	2023	2024
Safety and Environmental Stewardship of Chemicals								
Percentage of products that contain GHS of classification and labeling of chemicals Category 1 and 2 Health and Environmental Hazardous Substances[20]			5.4%	5.4%	5.4%	5.4%	N/A	76.0%
Percentage of such products that have undergone hazard assessment[21]			100%	100%	100%	100%	N/A	100%
Social								
Workforce Demographics								
Global headcount[22]	2,096	2,250	2,284	2,293	2,439	2,459	2,393	2,396
Percentage of women in global workforce					24.0%	24.0%	24.0%	24.0%
Total number of employees permanent full-time equivalent employees—men					1,848	1,861	1,797	1,802
Total number of employees permanent full-time equivalent employees—women					591	592	571	561
Total number of non-binary employees[23]						6	4	15
Percentage of employee covered by collective bargaining agreements			38.0%	38.0%	37.0%	39.0%	38.0%	33.0%
Number of new hires				228	395	336	277	285
Voluntary turnover				126	137	270	309	214
Training and Education								
Percentage of employees receiving regular performance reviews				86.0%	82.0%	65.0%	66.0%	67.0%
Safety								
Lost time incident rate (LTIR)—Stepan employees and temporary workers[24]	0.33	0.20	0.47	0.16	0.19	0.32	0.39	0.43[2]
Lost time incident rate (LTIR)—Chemical manufacturing (NAICS 325)[25]	0.60	0.60	0.60	0.70	0.80	0.60	0.60	N/A
Total recordable incident rate (TRIR)—Stepan employees and temporary workers[24][26]	0.69	0.51	0.74	0.64	0.54	0.42	0.53	0.65[2]
Total recordable incident rate (TRIR)—Chemical manufacturing (NAICS 325)[25]	2.0	1.9	1.9	1.8	2.0	1.9	1.8	N/A
Days away, restrictions, and transfers (DART) rate—Stepan employees and temporary workers[24]	0.45	0.28	0.80	0.52	0.42	0.39	0.46	0.51[2]

[20] Prior to 2023, reporting on this topics included only a subset of products and utilized a ranking for higher-risk chemicals. In 2024 Stepan evaluated our portfolio for GHS classification 1 and 2.

[21] Percentage of Stepan's 'high-priority' chemicals that have Product Stewardship summaries prepared and publicly available on the company website. Stepan is undertaking a full review of our portfolio for this topic and will resume reporting in our 2024 report. Stepan makes Product Stewardship summaries available on our website and is verifying completion during this year.

[22] See page 41 of the Sustainability Report for a breakdown of employees by gender, region, and contract type.

[23] This information was self-declared through an internal survey and represents voluntary disclosure of individuals who identify as non-binary.

[24] Employee means Stepan employees, temporary workers, and supervised contractors.

[25] Source: Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries and Illnesses, in cooperation with participating state agencies. Industry values above are for NAICS Code 325 – Chemical Manufacturing.

[26] Number of work-related injuries or illnesses per 200,000 worked hours during a one year period.

	2017	2018	2019	2020	2021	2022	2023	2024
Days away, restrictions, and transfers (DART) rate—Chemical manufacturing (NAICS 325)[25]	1.2	1.2	1.2	1.2	1.4	1.3	1.2	N/A
Fatalities—Employees[24]	0	0	0	0	0	0	0	0
Fatalities—Contractors	0	0	0	0	0	0	0	0
Number of employee and contractor injuries[24]				18 total incidents	17 total incidents	18 total incidents	19 total incidents	19 total incidents
Process Safety Incidents Count (PSIC)[27]			9	6	4	5	4	2
Process Safety Total Incident Rate (PSTIR)[27]			0.35	0.24	0.17	0.20	0.19	0.09
Process Safety Incident Severity Rate (PSISR)[27]			1.91	1.45	0.25	1.13	0.38	0.18
Number of transport incidents[28]				5	1	0	2	N/A
Supplier Management and Diversity								
Supplier Management Policy (Y/N)	N	Y	Y	Y	Y	Y	Y	Y
Percentage of new suppliers screened using social and environmental criteria (2019 baseline year)[29]	N/A	N/A	100%	100%	100%	100%	100%	100%
Human Rights								
Percentage of operations that have been subject to human rights reviews or impact assessments				100%	100%	100%	100%	100%
Percentage of Palm Derived Material Certified under RSPO[30]	4.0%	11.5%	16.0%	19.0%	29.0%	23.0%	14.0%	21.0%
Human Rights Statement (Y/N)	N	N	Y	Y	Y	Y	Y	Y
Equal Employment Opportunity Policy (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y
Child Labor Policy (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y
Conflict Mineral Policy (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y
Modern Slavery Policy (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y

[27] This includes only Tier 1 Process Safety events. The methodology is based on ANSI/API Recommended Practice 754 3rd Edition: Process Safety Performance Indicators for the Refining and Petrochemical Industries.

[28] For U.S. only. Includes U.S. DOT 5800 events related to hazardous material shipment. Reported with a one year time lag according to American Chemistry Council standard.

[29] Prior to December 2019, suppliers completed a self-assessment on safety, quality management, environmental management, OSHA, and other regulatory compliance, however data is not available.

[30] In 2023, Stepan implemented a new system for tracking palm-derived materials based on raw material components, which improved the accuracy of RSPO certification reporting. While this system remains in place, annual variability in certified material percentages may occur due to changes in customer demand.

	2017	2018	2019	2020	2021	2022	2023	2024
Ethics								
Anti-Bribery and Anti-Corruption Policy (Y/N)[31]	Y	Y	Y	Y	Y	Y	Y	Y
Code of Business Conduct and Ethics (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y
Whistleblowing and Non-Retaliation Policy (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y
Percentage of operations assessed for risks related to corruption		100%	100%	100%	100%	100%	100%	100%
Percentage of employees that have completed training on Ethics and Compliance policies, procedures, and issues		91.0%	95.0%	100%	100%	100%	100%	100%
Product Health, Safety, Labeling, and Marketing								
Incidents of non-compliance concerning product and service information and labeling[32]				0	0	0	0	N/A
Incidents of non-compliance concerning marketing and communications[33]				0	0	0	0	N/A
Data/Information Privacy and Security								
Substantiated complaints concerning breaches of customer privacy and losses of customer data[34]				0	0	0	0	N/A
Governance								
Board Composition and Independence								
Number of directors	8	8	7	7	8	8	7	8
Board average age	63	64	63	64	64	63	62	62
Mandatory retirement age (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y
Average director tenure (years)	14	15	11	12	12	12	12	11
Number of independent directors	6	6	6	6	7	6	5	6
Percentage of directors who are independent	75.0%	75.0%	86.0%	86.0%	75.0%	75.0%	71.0%	75.0%
Independence of committees (other than executive committee)	Y	Y	Y	Y	Y	Y	Y	Y
Independence of chairman (Y/N)	N	N	N	N	N	N	N	N
Independent lead director (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y

[31] Stepan's Ethics and Compliance team manages training and actions aimed at prevention of corruption and bribery, among many other ethics related practices. Incidents will be managed according to the defined process outlined in Stepan's Code of Conduct. Additional context is provided in Stepan's Form 10-K.

[32] No incidents resulting in a warnings, fines, or penalties concerning product and service information and labeling to Stepan's direct customers. Reported with a one year time lag.

[33] No non-compliance with warnings, fines, or penalties, based on sharing of misinformation on our products or through our marketing communications. Reported with a one year time lag.

[34] Stepan did not have any substantiated complaints concerning breaches of customer privacy. Reported with a one year time lag.

	2017	2018	2019	2020	2021	2022	2023	2024
Board Diversity								
Number of women on the board	1	1	1	1	2	2	3	3
Percentage of directors who are women	13.0%	13.0%	14.0%	14.0%	25.0%	25.0%	37.5%	37.5%
Board and Committee Meetings								
Number of board and committee meetings during the calendar year	16	23	20	21	24	19	21	30
Number of directors attending less than 75% of meetings during calendar year	1	0	0	0	0	0	0	0
Executive Compensation								
CEO stock ownership guidelines (Y/N)				Y	Y	Y	Y	Y
CEO stock ownership multiple of base salary				5 x base salary	5 x base salary	5 x base salary	5 x base salary	5 x base salary
Executive officer stock ownership guidelines (Y/N)				Y	Y	Y	Y	Y
Executive officer stock ownership multiple of base salary				2 x base salary	2 x base salary	2.5 x base salary	2.5 x base salary	2.5 x base salary
Director stock ownership guidelines (Y/N)				Y	Y	Y	Y	Y
Director stock ownership multiple of annual deferred stock award				5 x annual cash retainer	5 x annual cash retainer	5 x annual cash retainer	5 x annual cash retainer	5 x annual cash retainer
Shareholder Rights								
Single voting class (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y
Proxy access (Y/N)	N	N	N	N	N	N	N	N