

Introduction

The SASB Standards identify industry-specific ESG risks and opportunities and provide associated metrics that can be used to measure, manage, and communicate ESG performance to stakeholders in a consistent, comparable, and reliable way. To make it easier for our stakeholders to access this decision-useful ESG information, we have consolidated the SASB disclosure topics that are relevant to our business in this SASB Profile Report.

For this report, W. R. Grace & Co. (Grace) has utilized the disclosure topics contained within the SASB Chemicals Standard (RT-CH Version 2018-10), which aligns with SASB’s classification of Grace’s industry by its Sustainable Industry Classification System® (SICS®). Grace is reporting on all topics identified by SASB as material for the Chemical Industry, including: Greenhouse Gas Emissions; Air Quality; Energy Management; Water Management; Hazardous Waste Management; Community Relations; Workforce Health & Safety; Product Design for Use-phase Efficiency; Safety & Environmental Stewardship of Chemicals; Genetically Modified Organisms; Management of the Legal & Regulatory Environment; and Operational Safety, Emergency Preparedness & Response.

Greenhouse Gas Emissions

SASB Code	Activity Metric	W. R. Grace & Co. Response				
RT-CH-110a.1	Gross global Scope 1 emissions	<table border="1"> <thead> <tr> <th>Greenhouse Gas</th> <th>Metric Tons in CO₂e</th> </tr> </thead> <tbody> <tr> <td>Total Scope 1</td> <td>575,773</td> </tr> </tbody> </table> <p>Our gross global Scope 1 emissions calculations reflect the gases covered under the Kyoto Protocol: CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, and NF₃ emitted within the 2019 calendar year. The Global Warming Potential (GWP) reference used was the IPCC Fifth Assessment Report (AR5 – 100 year). Our reporting boundary for GHG emissions data are all manufacturing and administrative facilities (excluding warehouses and sales offices) under Grace’s operational control, including our Advanced Refining Technologies (ART) joint venture. We used the following standards/methodologies for our data collection and emissions calculations: The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) and U.S. EPA Mandatory Greenhouse Gas Reporting Rule.</p>	Greenhouse Gas	Metric Tons in CO ₂ e	Total Scope 1	575,773
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Total Scope 1	575,773					
Percentage gross global Scope 1 emissions covered under emissions-limiting regulations	<p>The percentage gross global Scope 1 emissions covered under the following emissions-limiting regulations within the 2019 calendar year are as follows: EU ETS (31%), Québec CaT - ETS (5%), and Sweden carbon tax (0.16%).</p> <p>Grace is fully compliant with the rules and regulations of the EU ETS and Québec CaT - ETS. In addition to just maintaining compliance, Grace is also focused on reducing GHG emissions resulting from our operations through the optimization of energy efficiency through audited energy management systems, improvement projects, and the optimization of its allowances. By reducing its emissions, Grace is reducing its costs under the Sweden carbon tax system as well.</p>					
RT-CH-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions	<p>Grace recognizes that the effects of climate change will play out over a medium to long time horizon, however the exact timing and impact on our business are uncertain. To reduce this uncertainty, we anticipate using climate-related scenario analysis to appropriately incorporate the potential effects of climate change into our strategy and planning processes. In 2020, we began gathering the necessary data to begin this analysis and we anticipate using the guidance provided by the Task Force for Climate Related Financial Disclosures (TCFD) to evaluate how climate-related risks and opportunities may evolve under different warming scenarios and their potential implications for Grace over the next two years. As this analysis is pending, we have not yet utilized climate-related scenario analysis to inform our business strategy and manage our future Scope 1 emissions. In the interim, Grace expects to continue our activities around reducing the impacts of operating our facilities by making our manufacturing operations less resource intensive, more productive, and more cost-effective ultimately reducing greenhouse gas emissions.</p>				

Greenhouse Gas Emissions (Continued)

SASB Code	Activity Metric	W. R. Grace & Co. Response
RT-CH-110a.2 (Continued)	Emissions reduction targets	<p>In 2020, Grace set a target for a reduction of 22% of absolute Scope 1 and 2 emissions by 2029, using 2019 as the baseline year.</p> <p>Going forward, we expect that each plant manager will establish an energy and GHG reduction target for their facility aligned with cascaded targets based on Grace's global reduction goal. Grace implements an annual Productivity process to drive continuous progress and increase the efficiency of our operations. Process operation and Environment, Health, Safety, and Security (EHSS) managers identify and drive implementation of Productivity projects to reduce resource (i.e. raw materials, energy and water) requirements for production, improve yields and manage costs. Each project is evaluated through a rigorous capital authorization process based on the projected efficiency and sustainability impact to Grace. Examples of energy and GHG reduction projects are listed below:</p> <ul style="list-style-type: none"> • Combined Heat/Power unit installation • Improving electric yield of existing combined heat and power units • Reduced compressed air consumption through process control changes and air leak repair. • Steam Usage Minimization • Optimization of slurry dewatering process • Calciner Heat Recovery System • Ammonia Recovery • Air preheating exchange system • Warehouse heating reduction • Autoclave heat recovery system • Process pump efficiency optimization • CO2 recycle for wastewater treatment • Water Usage Optimization across multiple plants

Air Quality

SASB Code	Activity Metric	W. R. Grace & Co. Response
RT-CH-120a.1	Air emissions of NOX	We track emissions of NOX from 73% of our global facilities. In 2019, air emissions of NOX were 147 metric tons.
	Air emissions of SOX	We track emissions of SOX from 73% of our global facilities. In 2019, air emissions of SOX were 133 metric tons.
	Air emissions of Volatile Organic Compounds (VOCs)	We track emissions of VOCs from 64% of our global facilities. In 2019, air emissions of VOCs were 46 metric tons.
	Air emissions of Hazardous Air Pollutants (HAPs)	We track emissions of HAPs from 68% of our global facilities. In 2019, air emissions of HAPs were 132 metric tons.

Energy Management

SASB Code	Activity Metric	W. R. Grace & Co. Response
RT-CH-130a.1	Total energy consumed	In 2019, the total energy consumed was 2,025,812 MWh. Our energy consumption data are collected from our global manufacturing and administrative facilities (excluding warehouses and sales offices) over which we have operational control.
	Percentage grid electricity	In 2019, non-renewable electricity accounted for 18% (1,318,327.2 GJ) of our total energy consumption. Our energy consumption data are collected from our global manufacturing and administrative facilities (excluding warehouses and sales offices) over which we have operational control.
	Percentage renewable	In 2019, Grace did not consume energy from renewable sources.
	Total self-generated energy	Grace generated 312,468 GJ of electricity through Combined Heat and Power Plants in 2019.

Water Management

SASB Code	Activity Metric	W. R. Grace & Co. Response
RT-CH-140a.1	Total water withdrawn	In 2019, total water withdrawn was 22,798.3 megaliters. Grace internally monitors its water withdrawals primarily through invoices sent by third-party providers or through direct readings obtained at the point of withdrawal. Withdrawals from public utilities are monitored at a frequency applicable to the billing cycle of that water utility. In instances where water withdrawal data exceeds a period of 3 months, water withdrawal is estimated. Additionally, many sites have flow meters which can be accessed as needed (daily, monthly or otherwise) to obtain and verify flow data. For example, on a monthly basis, in line flow meters are used for determining surface and groundwater withdrawals. Data gaps for both public utilities and surface or groundwater are addressed through engineering estimation where required.
	Total water consumed	Grace's total 2019 water consumption was 15,204 megaliters. We define water consumption as water that is incorporated into our products or lost to evaporation. Total consumption is calculated by subtracting total discharges from total withdrawals. In instances where we are unable to separate stormwater from wastewater using engineering estimates, we have assumed that 100% of withdrawal is consumption. In 2020, Grace set a target for a reduction of 10% of absolute water consumption by 2029, using 2019 as the baseline year.
	Percentage of each in regions with High or Extremely High Baseline Water Stress	Grace utilized the WRI Aqueduct tool to approximate the level of Baseline water stress at each of its facilities globally. Areas with a baseline water stress score above 3.0 (High to Very High) were identified as being within water stressed areas. Based on this screening, 5% or approximately 1,135 megaliters of Grace's total water withdrawals are from water stressed areas. Based on this prioritized assessment, water-related risk issues have not presented a significant enough risk to conduct a more thorough targeted hazard and risk assessment of our organizations water risks.
RT-CH-140a.2	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	Grace's global EHSS policy requires us to conduct business and operate facilities in an environmentally sound manner with a focus on eliminating unplanned environmental releases, improving efficiencies and reducing waste, and meeting community, state, and national regulations in jurisdictions where we operate around the world. In 2019, Grace was subject to one violation regarding discharge limits.
RT-CH-140a.3	Description of water management risks	Grace depends on readily available, clean water to maintain our global operations and we are committed to the responsible management of our shared water resources. We acknowledge that significant changes in water availability or quality, whether due to environmental or regulatory constraints, poses a potential risk to the business as it could have an impact on our company and supply chain. In 2019, Grace began an evaluation of water risks within its direct operations using external consultants and publicly available tools such as WRI Aqueduct. Risks to be evaluated include, but are not limited to, water stress, flooding, and water quality. We anticipate releasing the findings of our water risk analysis publicly within the next two years.
	Discussion of strategies and practices to mitigate those risks	The Grace Integrated Supply Chain and EHSS leadership, review water-related regulatory changes, establish water goals and assign leaders responsible for the execution of those goals. Leaders establish project teams with cross-functional subject matter experts critical for goal completion, develop action plans to achieve their goal, establish, monitor and report key performance indicators and supporting enterprise leadership in the completion of action plans. Progress towards the completion of goals is reported on a quarterly basis to ensure continued alignment with organizational priorities and allow for the allocation of additional resources. Additionally, Grace monitors risks at the facility level. All Grace facilities take steps to detect and eliminate impacts to water sources through a variety of methods ranging from leak detection and containment systems. The ability to treat or reduce pollutants in wastewater effluent is accomplished through wastewater treatment facilities housed at our manufacturing facilities. Continual improvement efforts commonly include waste minimization projects to reduce the mass of wastewater treatment filter cake or sludge. Grace also establishes goals for specific water reduction and water quality targets on an individual as needed basis, according to specific objectives, targets, and risks for a facility. These targets are monitored as key performance indicators for that facility by facility management.

Water Management (Continued)

SASB Code	Activity Metric	W. R. Grace & Co. Response
		<p>Grace collects water withdrawal, consumption and discharge data from facility EHSS, finance and other sources on an annual basis. Data is aggregated and verified by corporate EHSS prior to disclosure to internal and external stakeholders.</p> <p>Grace's water risk has historically been low based on an assessment of our facilities. We have identified the potential for water quantity and quality to be a material risk to both our suppliers and our customers. Beginning in 2021, we intend to begin assessing our suppliers for water risk and target completing this assessment within 5 years for our key suppliers. We will incorporate this data into our supplier score card process to better understand our supply chain risks as part of our sustainable procurement program. Other key stakeholders we work with on water stewardship include our customers, employees, investors, local communities and regulators.</p>

Hazardous Waste Management

SASB Code	Activity Metric	W. R. Grace & Co. Response														
RT-CH-150a.1	Amount of hazardous waste generated	<table border="1"> <thead> <tr> <th>Hazardous Waste Generated (in MT)</th> <th>2019</th> </tr> </thead> <tbody> <tr> <td>Converted to Energy</td> <td>174</td> </tr> <tr> <td>Incinerated (non-energy)</td> <td>345</td> </tr> <tr> <td>Landfill</td> <td>8,321</td> </tr> <tr> <td>Other</td> <td>1,193</td> </tr> <tr> <td>Recycled</td> <td>90</td> </tr> <tr> <td>Total</td> <td>10,122</td> </tr> </tbody> </table> <p>Grace incorporates the principles of Responsible Care and our EHSS Policy throughout the development, manufacture, and delivery of our products and services including designed products that can be manufactured, transported, used, and disposed of or recycled safely and minimizing the generation of waste. Hazardous waste is managed at each facility according to applicable regulations, corporate policies, and relevant industry best practices. Each facility undergoes regular compliance audits by third-party experts to verify operational compliance with these requirements. Grace monitors waste disposal volumes through invoices sent by waste disposal contractors. Waste disposal measurements are reported in weights disposed. This data is reported by facilities through an annual survey and aggregated at the corporate level for reporting.</p> <p>Grace has an approval process for high risk disposal vendors involved in the reclamation or treatment, storage or disposal of hazardous waste. The process requires that such facilities be audited and assessed for key environmental compliance, financial, operational, and training criteria.</p> <p>In 2020, Grace set a target for a reduction of 5% of absolute total waste (both hazardous and non-hazardous) by 2029, using 2019 as the baseline year.</p>	Hazardous Waste Generated (in MT)	2019	Converted to Energy	174	Incinerated (non-energy)	345	Landfill	8,321	Other	1,193	Recycled	90	Total	10,122
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Percentage recycled	<p>In 2019, the percentage of recycled hazardous waste was ~1%.</p> <p>Grace actively works to minimize the generation of waste by:</p> <ul style="list-style-type: none"> Partnering with recycling facilities to reclaim metals from catalysts Working with vendors to reclaim and recycle mercury from testing equipment Reclaiming spent solvents prior to disposal Working with R2 certified electronics recycling vendors Working with drum recyclers to minimize disposal of waste drums <p>Many of these programs successfully divert material from landfills preventing the waste from being classified as hazardous, further preventing the classification of recycled hazardous waste.</p>															

Community Relations

SASB Code	Activity Metric	W. R. Grace & Co. Response
RT-CH-210a.1	Discussion of engagement processes to manage risks and opportunities associated with community interests	<p>Grace is connected and available to neighbors and leaders of the communities where we operate. We make special effort to introduce ourselves to communities when we acquire new facilities and connect with leaders when we exit a business or a facility. We have been active in some communities for many years, including: over a century in Baltimore's Curtis Bay area; since the 1950s in Lake Charles, LA and Valleyfield, Quebec; since the mid-1960s in Chattanooga, TN; since the early 1970s in Worms, Germany and Sorocaba, Brazil; since the early 1980s in Aiken, GA; and, since the 1990s in Kuantan, Malaysia. At many facilities we participate in formal Community Advisory Panels (or local equivalent) through which we engage local stakeholders. Grace has continued to expand our global footprint since then and is proud to be an active partner with the communities in which we operate.</p> <p>Members of the Grace family donate hours, ideas, and effort to improve community health and safety, education, the environment, civic leadership, and much more. For example, we participate in many advisory groups, neighborhood and business associations, and countless ad hoc conversations with our communities. Many of these programs and initiatives are in response to requests while others develop under the leadership of more than 3,900 Grace employees in their own communities. The volunteer time, talent, and charitable gifts that our employees dedicate are often matched by Grace, i.e., through the W. R. Grace Foundation in the U.S.</p> <p>Additionally, the Grace Foundation contributes to programs and projects with a specific focus on science, technology, engineering, and mathematics (STEM) education and basic needs, such as food, shelter, first aid, and healthcare. We also support health and human services organizations, as well as civic, environmental, and cultural programs. We support organizations based in areas where Grace has a significant employee presence.</p>

Workforce Health & Safety

SASB Code	Activity Metric	W. R. Grace & Co. Response																						
RT-CH-320a.1	Total recordable incident rate (TRIR) for direct employees and contract employees	<p>We monitor and report lost-time incidents, recordables and first-aid incidents for all full-time employees of Grace facilities on an annual basis.</p> <table border="1"> <thead> <tr> <th>Employee Safety</th> <th>2019</th> </tr> </thead> <tbody> <tr> <td>Work-Related Fatalities</td> <td>0</td> </tr> <tr> <td>Lost-Time Incident Rate</td> <td>0.30</td> </tr> <tr> <td>Lost-Time Injuries</td> <td>10</td> </tr> <tr> <td>Recordable Rate*</td> <td>0.74</td> </tr> <tr> <td>Hours Worked</td> <td>6,496,923</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Contractor Safety</th> <th>2019</th> </tr> </thead> <tbody> <tr> <td>Work-Related Fatalities</td> <td>0</td> </tr> <tr> <td>Lost-Time Incident Rate</td> <td>0.26</td> </tr> <tr> <td>Lost-Time Injuries</td> <td>1</td> </tr> <tr> <td>Hours Worked</td> <td>759,953</td> </tr> </tbody> </table> <p>Source: Safety Performance</p> <p><i>*Note: Recordable rate for all employees calculated (Number of Recordables * 200,000) / Hours Worked</i> Lost Time Incident Rate calculated (Number of Lost Time Injuries * 200,000) / Hours Worked</p>	Employee Safety	2019	Work-Related Fatalities	0	Lost-Time Incident Rate	0.30	Lost-Time Injuries	10	Recordable Rate*	0.74	Hours Worked	6,496,923	Contractor Safety	2019	Work-Related Fatalities	0	Lost-Time Incident Rate	0.26	Lost-Time Injuries	1	Hours Worked	759,953
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	Total fatality rate for direct employees and contract employees	In 2019, Grace had zero fatalities with direct and contract employees.																						

Workforce Health & Safety (Continued)

SASB Code	Activity Metric	W. R. Grace & Co. Response
RT-CH-320a.2	Description of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks	<p>We operate our business with three clear objectives: no one hurt, nothing out of place, and no harm from our products. These Environment, Health, Safety, and Security (EHSS) goals, while ambitious, inform the key performance indicators by which we measure our progress toward Operating Excellence and effectively managing health, safety, and environmental risks.</p> <p>Grace's global EHSS Management System enables procedures and practices that establish formal worker-management health and safety committees at our plants and are empowered to make decisions and investments in workplace health and safety. Many committees lead long-standing, site-specific programs that maintain the focus on leading indicator analysis, near-miss and incident reporting, and other safety priorities. Committee actions are part of site-based safety and compliance audits.</p> <p>The Grace Integrated Supply Chain and EHSS leadership, oversees adherence to our EHSS programs. Weekly meetings track progress on EHSS Management System effectiveness, EHSS workstreams, and key performance indicators (KPIs). EHSS teams provide executive briefings on EHSS programs and KPIs to Grace Leadership and the Board during quarterly business review meetings.</p> <p>Facilities undergo EHSS Compliance audits to assess compliance to regulatory requirements and Grace EHSS standards, and Process Safety Audits to determine compliance to process safety codes and regulations. The EHSS Compliance and Process Safety Audits occur on a 3-year cycle for each facility. Corrective and preventive actions are developed for all identified audit findings and tracked to completion through Grace's EHSS information management software system (Enablon). All high-risk findings are verified by Corporate EHSS prior to confirming finding closure.</p> <p>We conduct risk-based medical monitoring for employees working in manufacturing operations and laboratories. Many of our sites have on-site medical staff (i.e. visiting physician; occupational health nurse) to provide occupational medical monitoring and care.</p>

Product Design for Use-phase Efficiency

SASB Code	Activity Metric	W. R. Grace & Co. Response
RT-CH-320a.2	Description of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks	<p>As part of a strategic review of our product portfolio, in 2019 we identified the products that directly contribute to our customers' sustainability objectives, including:</p> <ol style="list-style-type: none"> 1. Products designed for use-phase efficiency — defined by the Sustainability Accounting Standards Board (SASB) as products that “through their use-can be shown to improve energy efficiency, eliminate or lower greenhouse gas (GHG) emissions, reduce raw materials consumption, increase product longevity, and/or reduce water consumption,” either through: <ul style="list-style-type: none"> • Improved products — by increasing the efficiency of a product during its use phase, or • Improved processes — by increasing the efficiency of the manufacturing processes used to make products, and 2. Stricter Environmental Standards — products that directly enable customers to meet environmental regulatory/legal requirements applicable to their products or manufacturing processes. 3. Enabling sustainable reformulation — products that enable customers to reformulate their products to avoid or reduce to de minimis levels substances of concern to their customers. <p>Together, the products in our portfolio that address these sustainability endpoints accounted for approximately \$1.1 billion or 44% of our total revenue in 2019 (including the revenues of our Advanced Refining Technologies LLC joint venture).</p> <p>Of these 3 categories, we believe that products identified as falling within categories 1 and 3 (which enable certain raw materials including VOCs, heavy metals and phthalates to be eliminated) totaling roughly \$770 million in sales qualify as products designed for use phase efficiency as defined by SASB.</p>

Safety & Environmental Stewardship of Chemicals

SASB Code	Activity Metric	W. R. Grace & Co. Response
RT-CH-410b.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	<p>At this time, Grace does not track the percentage of its products, by revenue, that contain GHS Category 1 and 2 Health and Environmental Hazardous substances.</p> <p>However, all products are assessed for environmental, health, and safety impacts throughout a product's lifecycle. New products undergo a comprehensive risk characterization, prioritization, and management process. This process begins with an evaluation of the hazards associated with our products' ingredients. Every product's composition is defined, and reaction compounds, byproducts, impurities, or other minor components are evaluated. Available information on physio-chemical, health hazard, and environmental effects is reviewed, and studies are commissioned to obtain additional data as appropriate. Exposure risks are assessed for manufacturing processes, handling, packaging, distribution, use, and disposal. Risks are characterized for workers making the product, customers using the product, and others who may be affected.</p>
RT-CH-410b.2	Discussion of strategy to manage chemicals of concern	<p>Risk characterization, management, and communication are important elements of Grace's global Product Risk Characterization, Prioritization, and Management Process (PrISM). Our program identifies, reduces, manages, and communicates the environmental, health, and safety impacts associated with our products throughout a product's lifecycle, and adheres to principles of product stewardship. A detailed product stewardship checklist is employed as part of this process with specific questions and actions that need to be completed at each gate. The checklist helps ensure that every new product we create, we assess potential health and safety risks, we evaluate the need for personnel and customer end-user training on safe use, we define regulatory requirements and determine labeling required to communicate hazards. Prior to commercialization of a product, a risk management evaluation is performed. This evaluation assures that products can be safely produced, sold, and used in all intended applications.</p>
	Develop alternatives with reduced human and/or environmental impact	<p>Grace considers how to efficiently use natural resources and energy (i.e., using less hazardous raw materials); determine appropriate full lifecycle of the product, including disposal, recycling, or reuse; how to safely transport the product; and how to keep our customers from unintentionally misusing the product.</p>

Genetically Modified Organisms

SASB Code	Activity Metric	W. R. Grace & Co. Response
RT-CH-410c.1	Percentage of products by revenue that contain genetically modified organisms (GMOs)	Grace sells no products containing GMOs. The percentage of revenue is thus zero (0%).

Management of the Legal and Regulatory Environment

SASB Code	Activity Metric	W. R. Grace & Co. Response
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	As described in our 10-k, our business is subject to risks related to the differing legal, political, social and regulatory requirements and economic conditions of many jurisdictions. In general, our positions on these issues align with those of the American Chemistry Council.

Operational Safety, Emergency Preparedness and Response

SASB Code	Activity Metric	W. R. Grace & Co. Response												
RT-CH-540a.1	Process Safety Incidents Count (PSIC)	<p>Emergency preparedness is a key component to our Management System. All Grace facilities are required to maintain emergency response programs and plans. We conduct emergency response drills involving cross functional teams up to and including the Grace Leadership Team on a regular basis to continually improve our emergency response programs and plans.</p> <p>All of our facilities have one or more of the following: specialized onsite emergency response teams, contracts with local third-party response providers or a close working relationship with local governmental authorities to be prepared for emergencies. Several locations with onsite teams also participate in local mutual assistance programs. Additionally, Grace has HAZMAT specialists trained and available to quickly respond to off-site incidents of certain high hazard chemicals.</p> <p>Grace uses CHEMTREC as its 24/7/365 emergency response call center and has several country/regionally specific arrangements in Asia. All known incidents are tracked, and investigations conducted following the procedures employed for other incidents.</p> <p>Grace monitors its process safety performance in alignment with American Petroleum Institutes (API) Recommended Practice API-754: Process Safety Performance Indicators for the Refining and Petrochemical Industries. Grace reporting is also in alignment with the Process Safety reporting element of the American Chemistry Council's (ACC) Responsible Care® program which requires disclosing Tier 1 and Tier 2 PSE incidents to the ACC on an annual basis. For CY 2019, we recorded 4 Tier 1 and 13 Tier 2 process safety incidents.</p> <table border="1"> <thead> <tr> <th>PSE Tier</th> <th>Incident Count</th> <th>Hours Worked</th> <th>Incident Rate</th> </tr> </thead> <tbody> <tr> <td>Tier 1</td> <td>4</td> <td>7,256,876</td> <td>0.11</td> </tr> <tr> <td>Tier 2</td> <td>13</td> <td>7,256,876</td> <td>0.36</td> </tr> </tbody> </table>	PSE Tier	Incident Count	Hours Worked	Incident Rate	Tier 1	4	7,256,876	0.11	Tier 2	13	7,256,876	0.36
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Process Safety Total Incident Rate (PSTIR)	<p>For CY 2019, we recorded incident rates of 0.110 for Tier 1 and 0.3582 for Tier 2.</p> <table border="1"> <thead> <tr> <th>PSE Tier</th> <th>Incident Count</th> <th>Hours Worked</th> <th>Incident Rate</th> </tr> </thead> <tbody> <tr> <td>Tier 1</td> <td>4</td> <td>7,256,876</td> <td>0.11</td> </tr> <tr> <td>Tier 2</td> <td>13</td> <td>7,256,876</td> <td>0.36</td> </tr> </tbody> </table> <p>Process Safety Total Incident Rate calculated (Number of Incidents * 200,000) / Hours Worked. Note that per SASB guidance, for this calculation of "Hours Worked" includes hours worked by employees, and embedded contractors (per OSHA) plus other non-embedded contractors and sub-contractors.</p>	PSE Tier	Incident Count	Hours Worked	Incident Rate	Tier 1	4	7,256,876	0.11	Tier 2	13	7,256,876	0.36	
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Process Safety Incident Severity Rate (PSISR)	<p>The severity index ranges from 0 to 135, 0 indicating low severity and 135 as the highest severity. For CY 2019, Grace had a severity rate of less than 1 (0.83), indicating low severity. We had two total Tier 1 incidents (1 and 3 ratings) within our US operations.</p> <p>Process Safety Severity Index = $[(\# \text{ Level 4 ratings} \times 1) + (\# \text{ Level 3 ratings} \times 3) + (\# \text{ Level 2 ratings} \times 9) + (\# \text{ Level 1 ratings} \times 27)] \times 200,000 / \text{Hours Worked}$</p>													
RT-CH-540a.2	Number of transport incidents	We had zero transport incidents for 2019.												