Climate Change

Climate Change Priorities

Reduce Carbon Intensity

Continue pursuit of carbon intensity reductions in our operations, as well as reductions from our value chain.

Advance Renewable Energy Solutions

Explore opportunities to develop renewable energy projects to support carbon intensity reductions.

Strengthen Climate Resilience

Continue building resilience to mitigate potential physical and transitional climate risks.

Climate Risk Management

CPChem uses climate-specific scenario analyses to assess climate-related risks, categorized into physical risks (e.g., flooding, extreme heat, hurricanes, water scarcity) and transition risks (e.g., policy changes, market responses). These analyses inform CPChem's Enterprise Risk Management and strategic planning, ensuring resilience and competitiveness.
SDG #13, Climate Change

In 2024, CPChem revisited our Climate Risk Assessment. Incorporating data from the latest IEA NZE scenario and other third-party sources aligned to IPCC RCP 7 and RCP 8.5, we utilized scenario-planning tools for our internal analysis of transition and physical risks. The 2024 results identified risks consistent with our previous analyses. Risks discussed in previous reports are summarized at the end of this document.

Emissions

Greenhouse Gas Emissions*

Scope 1

In 2024, CPChem's Scope 1 emissions on an operated basis were 4.8 MMT CO_2e, and 7.3 MMT CO_2e on an equity-basis

Scope 2

In 2024, CPChem's Scope 2 emissions on an operated basis amounted to 1.9 MMT CO_2e, and 2.5 MMT CO_2e on an equity basis, on a market-basis

In 2024, CPChem's Scope 2 emissions on an operated basis amounted to 1.8 MMT CO_2e, and 2.4 MMT CO_2e on an equity basis, on a location-basis**

Scope 3

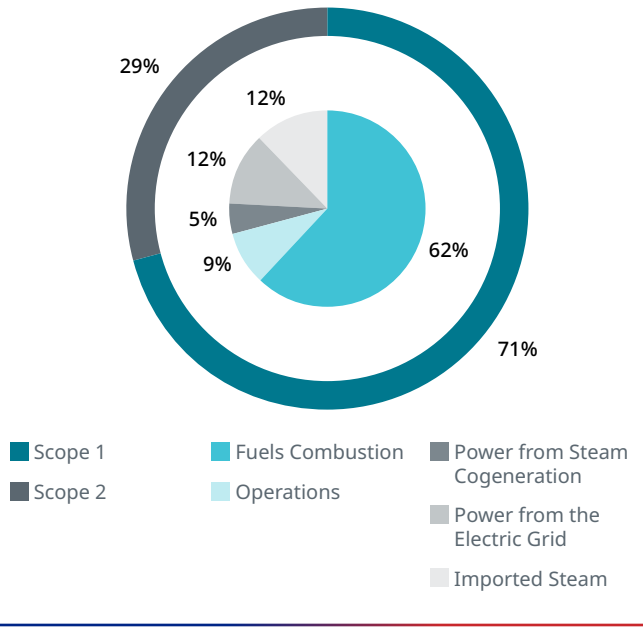
We are evaluating the organization's Scope 3 emissions in alignment with the GHG Protocol and working to measure these GHG emissions. Our aspiration is to assemble a GHG emissions inventory of Scope 1, Scope 2 and Scope 3 emissions for reporting in the future. CPChem seeks to use its inventory data to help identify potential GHG emissions reduction opportunities.

* The calculation of CPChem's GHG emissions data is consistent with the World Resources Institute and the World Business Council for Sustainable Development Greenhouse Gas Protocol. CO_2, CH_4 and NO_2 are included in CO_2e.

** Location-based reporting uses the average emissions intensity of the local power grid, while market-based reporting reflects emissions from the specific electricity contracts a company has purchased.

Combustion of fuels in ethylene furnaces and steam boilers, and process-related emissions such as flaring represent most of CPChem's Scope 1 emissions. CPChem's Scope 2 emissions originate primarily from third-party providers in the generation of energy used by CPChem. Supplied energy includes power procured from the electric grid, steam cogeneration and imported steam. CPChem's ethylene assets benefit from fleet location, the ability to crack light feedstocks, and regular improvements in energy efficiencies to enhance the competitiveness of their Scope 1 and 2 GHG emissions intensities compared to similar global facilities.

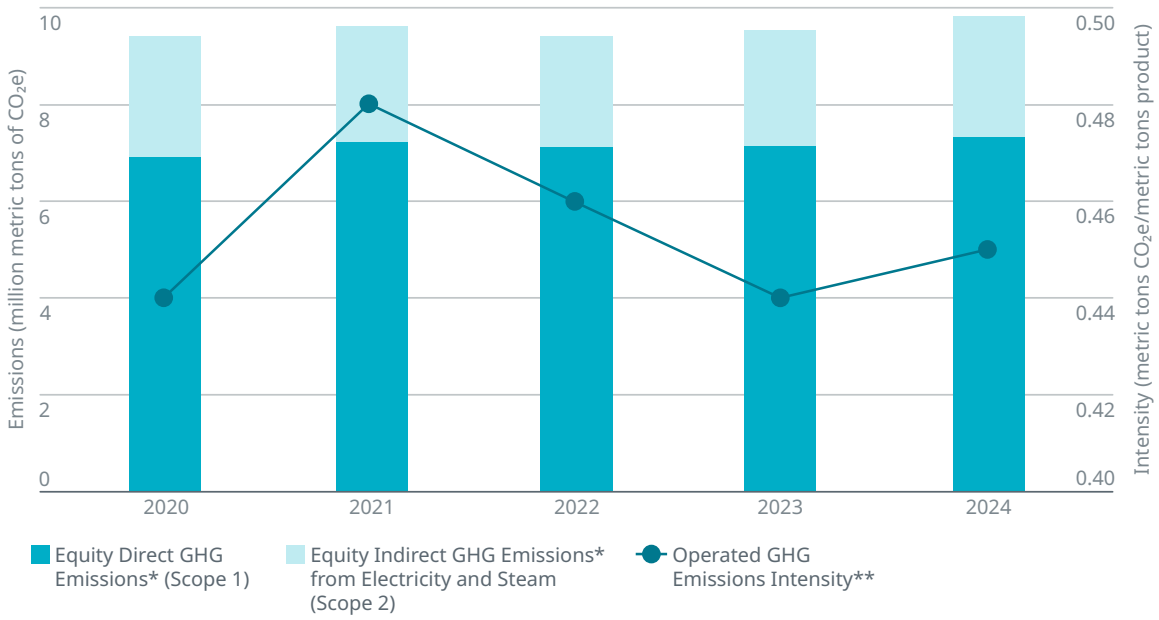
Scope 1 and Scope 2 GHG Emissions Sources



In 2024, CPChem's absolute GHG emissions increased both on an operated and equity basis compared to the prior year. This is attributable to increased production and site enhancements. Despite an increase in total emissions, CPChem facilities are focusing on managing GHG emissions intensity while mobilizing assets to meet the global demand for its products.

During the next several years we plan to continue to grow our production capability, operationalize new, more efficient assets and implement projects identified through MACC Assessments. We remain dedicated to efficient operations and reducing GHG emission intensity and acknowledge that GHG emissions will change as we undertake these projects that are essential for achieving our goals. Explore our → 2024 Performance Data Tables to learn more about emissions at CPChem.

GHG Emissions



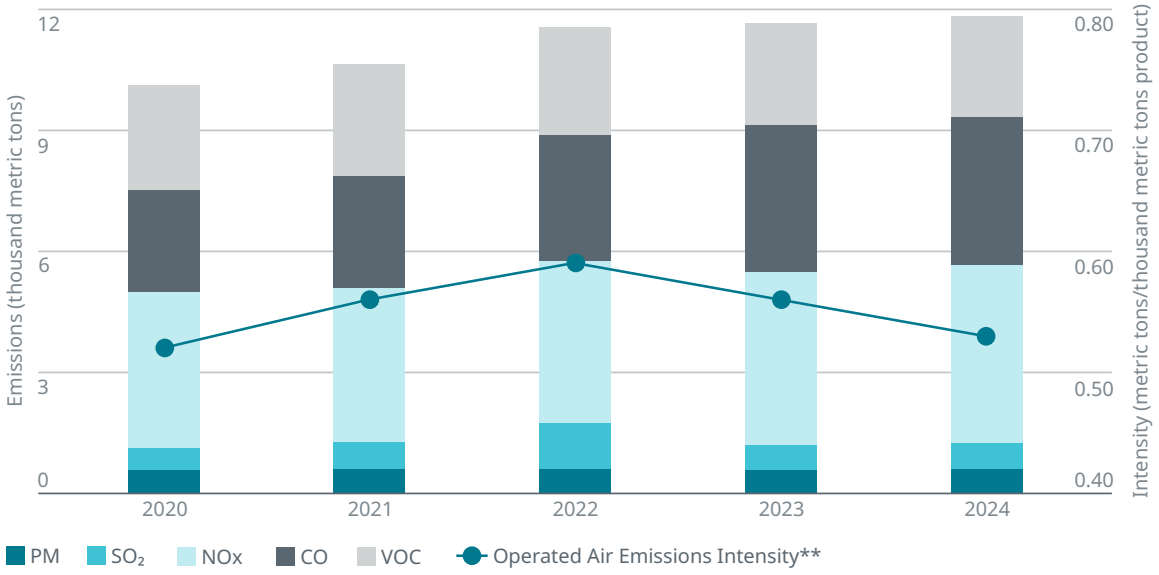
* GHG emissions reported on an operated basis represent 100% stake for wholly owned and joint venture operations which are operated by CPChem, inclusive of one CPChem operated Owner's facility in Old Ocean, Texas. GHG emissions reported on an equity basis represent wholly owned operations, inclusive of one CPChem operated Owner's facility in Old Ocean, Texas, and the equity stake for facilities where CPChem has only partial equity ownership. Totals are rounded to the nearest hundred thousand metric tons.

** GHG Intensity is reported on an operated basis and represents 100% stake for wholly owned operations, inclusive of one CPChem operated Owner's facility in Old Ocean, Texas. GHG Intensity is the ratio of the greenhouse gases emitted (MT of CO_2e) divided by the products produced (MT of product).

Air Emissions

In 2024, air emissions totaled 11.78 thousand metric tonnes on an equity basis. We recorded a decrease in air emissions intensity from 0.56 in 2023 to 0.53 TMT product on an operated basis in 2024. Explore our → Performance Data to learn more about air emissions at CPChem.

Air Emissions*



* Air emissions data is reported on an equity basis and represents 100% stake reported for wholly owned operations, with the exception of Performance Pipe and inclusive of one CPChem operated Owner's facility at Old Ocean, Texas and one CPChem-operated joint venture in Baytown, Texas, and the equity stake for facilities where CPChem has only partial equity ownership, with the exception of AmSty and owner operations in Pascagoula, Mississippi.

** Air emissions intensity data is reported on an operated basis and represents 100% stake for wholly owned operations, except for Performance Pipe.

Air Monitoring

CPChem supports both the Houston Regional Air Monitoring and South East Texas Regional Air Monitoring networks in Houston and Southeast Texas. Participation enables CPChem to receive early indications of potential air emissions from an undetected leak or upset through monitors maintained and read by a third party. This information helps site teams quickly investigate operations, determine possible abnormalities and make appropriate adjustments.

Managing Resources Responsibly

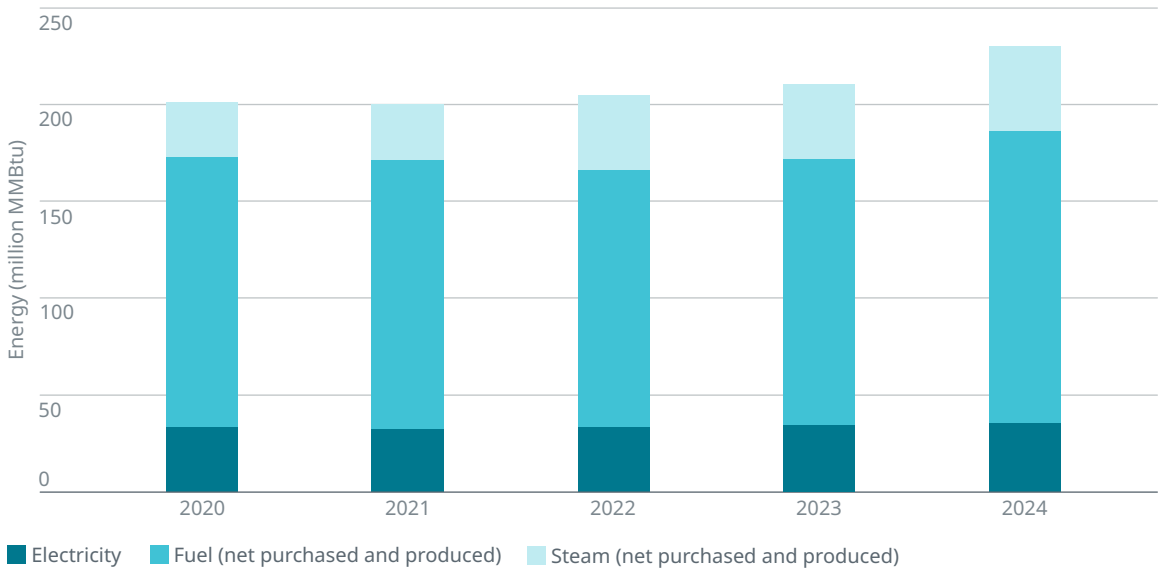
Energy

We support access to affordable and reliable energy, optimize energy consumption and seek to minimize energy intensities.
SDG #7, Affordable and Clean Energy

Our company purchases energy in the form of fuel, electricity and steam. Additionally, our manufacturing facilities utilize by-product fuels generated during operations to produce energy on-site. Longstanding programs at CPChem focused on reliability and energy management enable reductions in carbon intensity and improvements in other air emissions performance.

In 2024, CPChem's equity global energy consumption reached 229 million MMBtu, with an energy intensity of 5,703 Btu per pound of product on an operated basis. Total energy consumption increased in 2024, partly due to higher fuel consumption and production figures. CPChem's manufacturing teams continuously strive to enhance efficiency across our facilities and improve energy performance.

Energy Consumption*



* Energy data reported on an equity basis represents wholly owned operations and the equity stake for facilities in which CPChem has only partial equity ownership, with the exception of Performance Pipe, Amsty and owner operations in Borger, Texas.

Energy Best Practice Teams

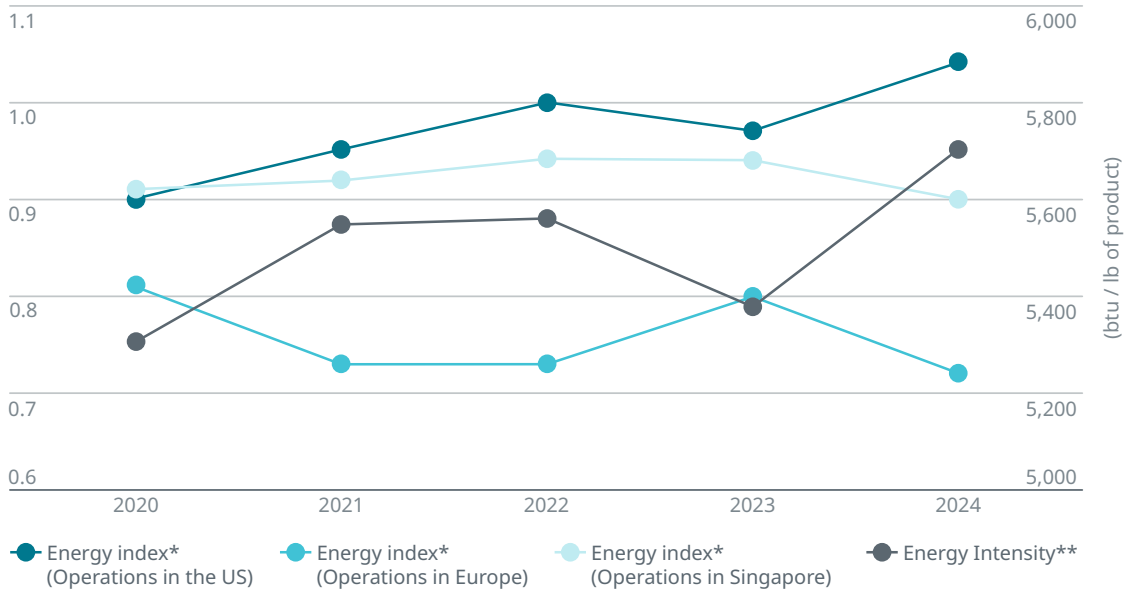
CPChem empowers site Energy Best Practice Teams to enhance energy performance and spearhead energy reduction initiatives. Team leaders regularly convene to exchange best practices, celebrate achievements, and challenge one another to creatively meet the company's energy goals.

One tool our teams use is a facility-level energy intensity index. This calculation allows facilities to standardize benchmarking and monitoring efforts while tracking annual progress toward energy reduction goals. CPChem's energy intensity index for 2024 in various regions was 0.72 (Europe), 0.90 (Singapore) and 1.04 (United States). See our → 2024 Performance Data Tables for more details on energy performance.

Energy Reduction Site Awards

In 2024, CPChem received two awards from the American Chemistry Council for outstanding energy performance at our Old Ocean, TX facility, where polyethylene assets reduced energy consumption per pound of product. Energy reductions were achieved through steam and fuel consumption optimization in equipment and operations. This project was completed through our MACC process, and after a full year of operation, has resulted in a greater than 40% reduction in fuel consumption of assets at this location.

Regional Energy Index and Energy Intensity



* Energy index compares a facility's performance to a baseline year. A majority of our facilities use 2008 as a baseline year.

** Energy intensity is reported on an operated basis and represents 100% stake for wholly owned operations, with the exception of Performance Pipe.

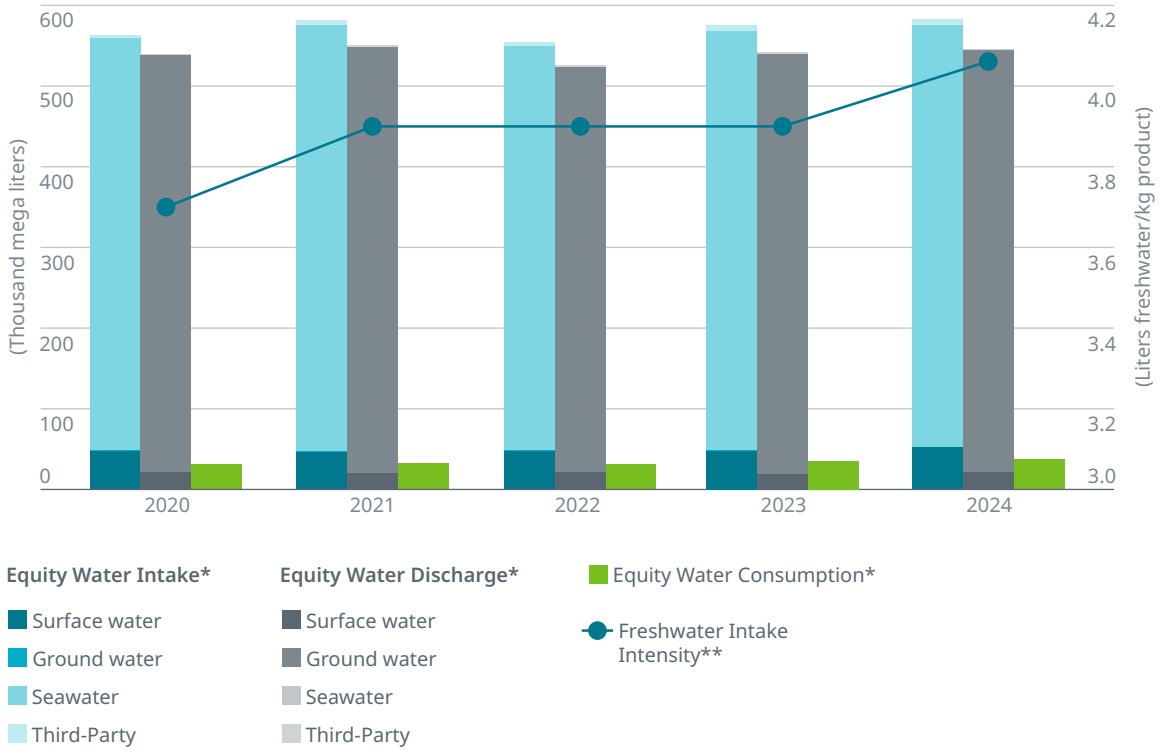
Water

CPChem's Commitment to Water Stewardship

Aligning with the United Nations Sustainable Development Goals, we believe that clean water should be accessible to all. CPChem embraces new ideas and practices that champion increased water efficiency in support of SDG #6, Clean Water and Sanitation. Globally, there will need to be efforts to strengthen the resilience of ecosystems and use water more efficiently to minimize the impacts of water stress on people and the environment.

At CPChem, we use surface water, groundwater, seawater, and water provided by third parties for various purposes, including cooling, quenching, steam production, conveyance, and treatment of potential contaminants. Seawater is leveraged in several cooling applications which allows CPChem to reduce its consumption of freshwater resources where possible. CPChem experienced an increase in water use in 2024 due to expansion projects at multiple facilities, extended operational hours and higher production rates.

Water Use



* Water intake, discharge and consumption totals reported on an equity basis represents wholly owned operations and the equity stake for facilities where CPChem has only partial equity ownership, with the exception of Amsty and owner operations in Pascagoula, Mississippi and Borger, Texas. Total Water Consumption represents the difference between water intake and water discharge and includes water lost due to evaporation. Totals are rounded to the nearest hundred thousand mega liters.

** Freshwater intake intensity is reported on an operated basis and represents 100% stake for wholly owned operations.

As part of our Operational Excellence program, we continuously monitor the impacts of discharged water and seek opportunities to optimize water withdrawal and consumption. Our Water Reliability Teams employ industry recognized best practices for water management and aim to enhance water quality to sustain safe and reliable operations at our facilities.

Understanding Water Stress

Water stress is a growing concern worldwide, referring to the challenges in meeting both human and ecological demands for water, including issues related to accessibility, quantity, and quality. According to the United Nations Sustainable Development Goals 2023 report, 2.2 billion people lack access to safely managed drinking water. This underscores the importance of embracing values and practices that conserve and protect freshwater resources and promote water efficient processes. In line with our climate change strategy, we have identified steps to better understand water stress and are performing Water Body Risk Assessments at our manufacturing facilities to identify water-related challenges and develop tailored strategies.

The American Chemistry Council in collaboration with The Water Council, developed the WBRA framework. This step-by-step guidance document provides tools and resources for companies to assess and prioritize potential water-related risks, evaluate mitigation strategies, and promote engagement in local water stewardship opportunities that address shared water challenges. Water challenges and their corresponding risks to businesses are hyperlocal, and it is important for us to consider and implement impactful actions that are informed by the context of the watershed and the operational aspects of each facility. The WBRAs are helping to inform facilities' water stress risk, strengthen our resiliency planning for water, and improve awareness of water-related impacts on our business, communities and surrounding resources.

Using Water Responsibility

Water stewardship serves as a cornerstone for both climate and social dimensions, as water is a shared resource vital to people, nature and biodiversity. As both a key influencer to and reflection of community health, water will remain a top priority for both people and industry.

Near Zero Liquid Discharge

The Near Zero Liquid Discharge Project at Ras Laffan Olefins Company is a significant initiative aimed at enhancing environmental sustainability by minimizing liquid discharges and promoting resource conservation. Water in Qatar is a precious resource, mainly made available from the desalination of seawater.
SDG #14, Life Below Water

Improving Water Infrastructure in the Red River Basin

CPChem's Performance Pipe division is proud to contribute to a transformative project aimed at revitalizing the water infrastructure in the Red River Basin area of Texas. In a dynamic collaboration with the Plastic Pipe Institute, this ambitious initiative tackles the pressing challenge faced by the Red River Authority in managing the aging pipes of the Lockett Water System. Recognizing the urgent need for a reliable and long-lasting solution, Performance Pipe stepped in to supply 20 miles of pipe. The upgrade will help deliver a dependable supply of clean drinking water to the 705 customers served by the Lockett Water System. Through initiatives like these, Performance Pipe continues to build strong relationships and enhance the well-being of the communities it serves. With innovative solutions and dedicated efforts to advance sustainability, Performance Pipe is not just addressing today's challenges but paving the way for a brighter, more resilient future for Texas and beyond.

SDG #6, Clean Water and Sanitation

Aligned with *Our Journey to Zero* commitment to each other and to our communities, CPChem facilities will continue to employ water management practices focused on reducing impacts to water systems and optimizing water use in our operations. Our efforts aim to contribute to healthier watersheds and ecosystems, helping to foster a more equitable and sustainable future.

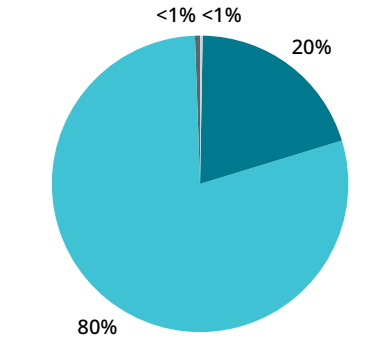
Waste

CPChem is committed to optimizing resource consumption and waste production to help mitigate associated impacts. We employ diversion mechanisms to keep waste out of landfills, reduce consumption where possible, and promote a circular economy within the company and industry. Waste specialist teams at each manufacturing site develop and endorse practices to reduce waste, prevent pollution, and adopt a "reduce, reuse, recycle" mindset.
SDG #12, Responsible Consumption and Production

In 2024, CPChem's global operations generated 66.52 TMT of non-hazardous waste and 30.06 TMT of hazardous waste on an equity basis. More than 35% of non-hazardous waste, the company's largest waste category, was diverted from disposal. We continue to enhance our waste inventory through expanded analysis of all waste streams to better identify and prioritize areas for improvement, including our Scope 3 emissions inventory. Additionally, we employ specialized disposal techniques such as biotreatment, energy recovery, incineration, landfill, materials recovery, and more.

We advocate for the proper disposal of all waste. By reviewing disposal practices and standardizing waste processes, we improve communication with third-party facilities and ensure the correct management of materials. Additionally, our facilities maintain dedicated procedures for spill prevention, controls, countermeasures and contingencies for waste.

Waste Generation in 2024



Waste Disposal in 2024