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Products for Progress

Central to CPChem's sustainability journey is the development of products and technologies that help reduce our environmental footprint while enabling responsible use of resources. Working to eliminate plastic waste in the environment is something CPChem is actively engaged in through multiple initiatives.

Our Product Sustainability and Circularity work is anchored in these priorities.

Drive Development of Circular Products

Progress the commercialization of circular products.

Marlex® Circular Polyethylene | Anew™

Reduce product footprint

Complete product Life Cycle Assessments and better understand the impact of our products.

Support global action to eliminate plastic waste

Join efforts to eliminate plastic waste in the environment.

From keeping our food and water fresh, to safeguarding medical instruments and enhancing vehicle performance, plastics play an essential role in our daily lives. At CPChem, we are working to make those essential roles more sustainable through innovative design and product applications like:

Automotive

CPChem's normal alpha olefins and polyalphaolefins are key components in high-performance lubricants for vehicles, aircraft, wind turbines, and more, outperforming many alternative materials. Our polyethylene products are used in select applications that support vehicle lightweighting.
SDG #7, Affordable and Clean Energy

Food & Agriculture

Specialized plastic packaging offers an efficient, lightweight, and cost-effective way to preserve produce, extend the shelf life of dairy, meat, and poultry products, and protect food during storage and transportation. Plastics also play a vital role in food production, providing durable pipes and fittings for agricultural irrigation systems to water crops and hydrate livestock.
SDG #2, Zero Hunger

Home & Electronics

Plastics' versatility makes them highly desirable for electronic and technological applications. Their strength and flexibility enable safe use of extension cords, network cables, and device chargers through effective plastic shielding of electrical wires.

SDG #9, Industry, Innovation and Infrastructure

Medical & Pharmaceutical

The unique properties of plastics make them well-suited for medical applications, such as pharmaceutical containers and packaging that keeps medical instruments protected and sterile. CPChem's Specialty Chemicals division supports the pharmaceutical industry by providing materials used in medical devices, surgical equipment, and vaccine production.

SDG #3, Good Health and Well-being

Personal Care

From waterproofing agents for sunscreen, to hand soaps, shampoos and body washes, our products serve as chemical building blocks in personal care products and their packaging.

Waste Management

CPChem plastics serve as an essential material in manufacturing durable curbside collection bins with lids, designed to collect waste for recycling, composting, and landfilling in North America. Even after use, materials such as cardboard, metal, plastic, and organic material retain value. These bins play an important role helping to keep waste out of the environment, contribute to an effective waste management system and a circular economy.

SDG #12, Responsible Consumption & Production

Water & Infrastructure

High-density polyethylene pipes deliver clean drinking water and significantly reduce the substantial water loss seen in steel and concrete piping systems. Additionally, polyethylene pipes safely transport natural gas, and safeguard sensitive electrical and telecommunication cables, helping to keep the world powered and connected.

SDG #6, Clean Water and Sanitation

SDG #7, Affordable and Clean Energy

Insight, Ideas and Innovation

CPChem's Research & Technology teams innovate, test and advance a pioneering legacy that drives progress within the company and across the industry. These teams collaborate with industry peers and academic institutions to research, develop, and assess emerging technologies, such as plastics recycling.

Through CPChem's R&T Management Sponsored Research (MSR) program, researchers can propose groundbreaking ideas and apply for funding to accelerate the study, development, and potential commercialization of novel approaches to sustainability. In 2025, approximately one third of CPChem's MSR program funds were allocated to projects aimed at enhancing the circularity of plastics.

CPChem made progress advancing circular solutions by successfully executing a proof of concept for circular butadiene derived from recycled motor oil. The company continued to expand business development efforts across the value chain, working closely with plastic recyclers to assess new projects, technologies, and supply volumes; engaging stakeholders to evaluate multiple circular feedstock pathways while strengthening supply chain resilience; and collaborating with customers and brand owners to better understand demand drivers. These efforts were complemented by refreshed economic modeling that reflects both recent learnings and a rapidly evolving market landscape, as well as continued advocacy to help establish the conditions needed for a scalable and effective circular economy.

CPChem fosters a culture of ingenuity, celebrating and incentivizing creativity and agility. CPChem teams are tasked with transforming innovative ideas and suggestions from employees into reality, driving the company's evolution.

Lower Carbon Products and Processes

CPChem uses Life Cycle Assessments to measure the environmental impact of its products throughout their lifecycle—from material sourcing to production, intended use, and end-of-life/recycling. These assessments provide valuable insights and detailed data.

We are conducting LCAs across all product lines to assess carbon footprints and other environmental, health, and social impacts. These data help identify opportunities to reduce emissions, decrease water consumption, and use energy more efficiently. By leveraging this data-driven approach, we aim to enhance the sustainability of our products and strengthen CPChem's portfolio resilience throughout any economic environment.

Life Cycle Analysis

Product Stewardship

CPChem's product stewardship goals center on global regulatory compliance, transparency, safer chemistry and advancing a circular economy.

These goals are supported by a proactive, risk-based approach that integrates regulatory readiness, scientific evaluation, product innovation, and industry collaboration to ensure responsible management of products throughout their life cycle.

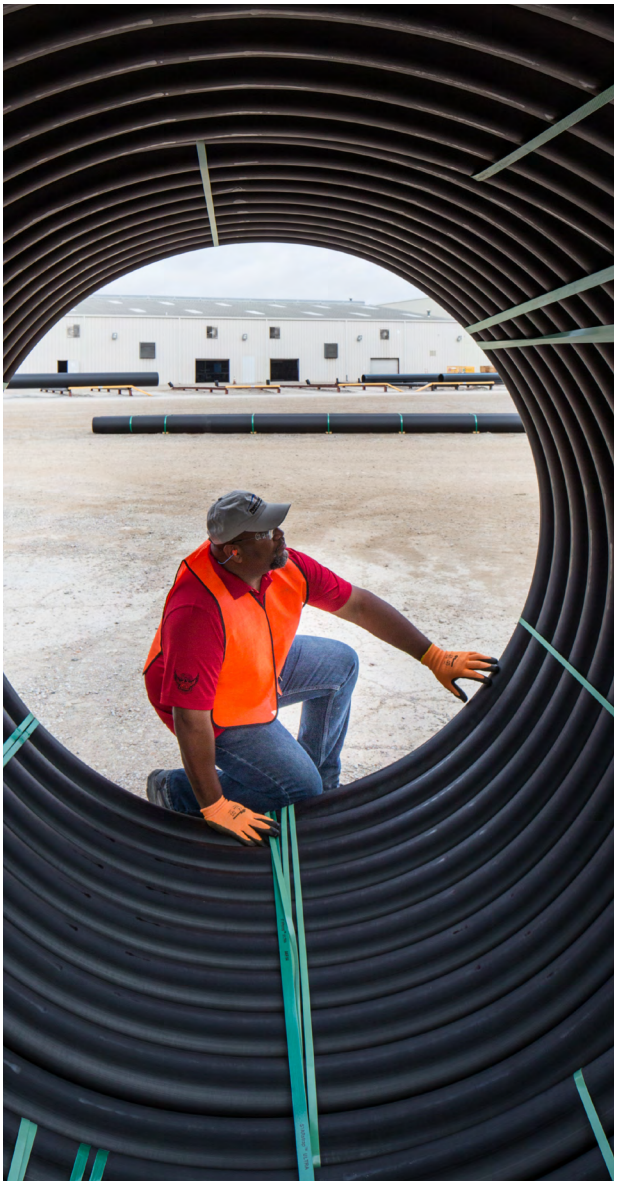
We adhere to the guidelines set forth in our Operational Excellence (OE) System to ensure the safe handling and use of our products. In addition, CPChem conducts thorough reviews of its products to evaluate aspects such as customer feedback, regulatory updates, hazard profile, transportation risks, and other critical areas.

Product Portfolio Review

During a Product Portfolio Review, the entirety of our product line-up undergoes a thorough assessment using a weighted composite score system. This evaluation measures:

- End-use applications
- Environmental impact
- Public perception
- Marketing response
- Regulatory profile
- Hazard Profile
- Production volume
- Modes of distribution

Through a science-first approach, CPChem strengthens product safety by continually assessing risks and promoting responsible product use across global markets.



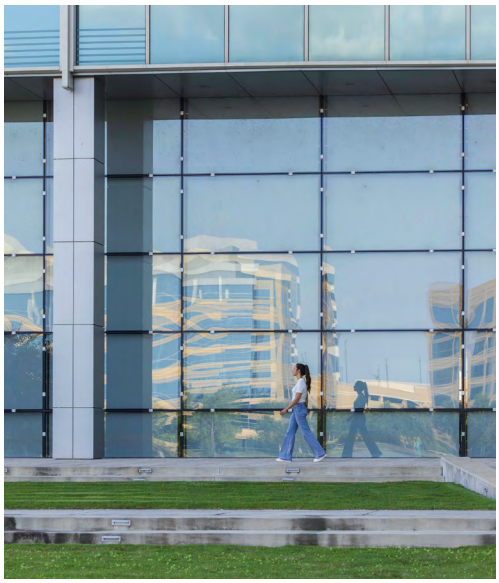
Circularity and Ending Plastic Waste

Plastics play an integral role in enabling a more sustainable future; however, inadequate waste management infrastructure and limited end-of-life solutions have raised concerns about their impact on oceans and natural ecosystems.

At CPChem, we work to deliver the benefits of plastics to more than eight billion people today while continuously innovating to help reduce our footprint for future generations.

CPChem is helping reshape how plastics are made, used, and reused. Through emerging recycling technologies and expanded infrastructure, feedstocks produced through advanced recycling can be transformed into new polyethylene resins and other valuable products. Advanced recycling, also known as chemical recycling, converts plastic waste streams that are less desirable for mechanical recyclers into new raw materials. By converting difficult-to-recycle plastic waste into feedstocks that can be used in existing manufacturing processes, advanced recycling provides an opportunity to expand the range of plastics that can be recycled. Through a mass balance approach, polymers attributed to advanced recycled feedstocks are produced to the same specifications and performance requirements as polymers made using fossil-based feedstocks, making them suitable for applications where consistent material performance is required.

Commercially introduced in 2022, Marlex® Anew™ Circular Polyethylene is CPChem's first certified circular product. Through feedstocks derived from pyrolysis oil and attributed under a mass balance methodology, Marlex® Anew™ Circular Polyethylene is helping ensure materials remain in the value chain and out of landfills while delivering the same performance characteristics customers require across a wide range of applications, supporting SDG #12, Responsible Consumption and Production.



Collaborations and Shared Commitments

CPChem is also helping to prevent plastic loss by committing to global initiatives like Operation Clean Sweep® and collaborative plastic management programs.

Operation Clean Sweep®

For more than 25 years CPChem has been part of OCS®, a global initiative to prevent plastic resin loss and keep plastics out of waterways. Across our global plastic handling facilities, CPChem follows OCS® guidelines, which include sharing best practices, enhanced reporting, third-party audits, and cross-industry collaboration. In 2025, we completed our first OCS third party audits across facilities in the United States and the Middle East.

CPChem was recognized with the 2025 Operation Clean Sweep® Difference Maker Award for its strong commitment to eliminating plastic resin loss and strengthening environmental stewardship across the industry.

CPChem also made significant investments aimed at eliminating plastic waste:

Alliance to End Plastic Waste

CPChem is a founding member of the Alliance to End Plastic Waste, which includes nearly 70 companies working to eliminate plastic waste by investing in waste management infrastructure in developing regions. In 2025 the Alliance helped recover significant value by reducing over 165,000 metric tons of unmanaged plastic waste.

Circulate Capital

In 2025, our contribution to the Circulate Capital Ocean Fund helped circulate or reduce a total of 19,563 metric tons of plastic (11,349 metric tons of plastic excluding the baseline at the time of investment) across South and Southeast Asia.

Our investment in the Circulate Capital Ocean Fund Latin America and the Caribbean have circulated or reduced a total of 21,884 metric tons of plastic in 2025 across Latin America and the Caribbean.

Closed Loop Partners' Circular Plastics Fund

CPChem's contribution to Closed Loop Partners' Circular Plastics Fund kept 18,500 metric tons of plastic in circulation in the U.S. and Canada.

Infinity Recycling

CPChem has invested in Infinity Recycling's Circular Plastics Fund, which focuses on advanced recycling technologies for end-of-life plastics. This investment helps support the transition to a circular economy, aspiring to deliver both financial and environmental benefits.

Polymer Business Outlook

CPChem uses long term price and supply demand outlooks, calibrated with third party market intelligence, to assess potential risks and test the resilience of the company's strategy under a range of conditions.

Scenario analysis remains integral to this approach, enabling CPChem to monitor dynamic regulatory and market environments and refine planning assumptions as conditions evolve, consistent with prior Sustainability Reports. This disciplined, high level framework supports continuity in decision making while acknowledging ongoing uncertainty in global polymers markets.

In 2025, the polymer business landscape was heavily impacted by uneven economic growth, regional supply demand imbalances and heightened geopolitical fragmentation. Protectionism, trade realignment and regionalization continue to influence the production and consumption of polymers, with feedstock and energy volatility reinforcing the importance of cost competitiveness and operational flexibility. These dynamics underscore the need for resilient business models capable of navigating market cycles, shifting trade flows and evolving policy frameworks.

Against this backdrop, the circular economy and lower-carbon transition remain important in CPChem's Polymer Business Outlook. While cost and performance continue to drive plastics demand, expectations from customers, brand owners and regulators increasingly include a call for solutions that address plastic waste and reduce greenhouse gas emissions. Circular and lower carbon intensity polymers are expected to complement, rather than displace, current asset production, with growth influenced by regional regulations, infrastructure readiness and the availability of quality recycled materials. CPChem's Polymer Business Outlook reflects the view that progress in scalable circularity will depend on supportive policy, clear market signals and collaborative action across the value chain.

Consistent with CPChem's updated aspirational sustainability targets, the company continues to prioritize agility, innovation and collaboration. This strategic focus supports progress toward a more circular, lower carbon polymer system while strengthening CPChem's resilience and competitive position in a dynamic global market.