

# Sustainability Report

Data for sustainable growth

April 2023



**SunChemical®**

a member of the DIC group



Color & Comfort





## Message from Myron Petruch

With our thirteenth Sun Chemical sustainability report, we demonstrate our continuing leadership and commitment within our industry, with our suppliers and with the customers we serve.

This edition of our report includes a focus on recent significant acquisitions to the growing portfolio of Sun Chemical platforms, including the integration of the former BASF Colors & Effects business into the Sun Chemical family, and provides an updated view of our combined efforts.

Sustainability continues to be pivotal to how we develop and bring products to market, how we work with our suppliers and how we work with our customers to achieve their sustainability targets. We remain focused on our commitment to sustainability even as we manage global challenges around energy and supply chain disruptions.

As part of our sustainability strategy, Sun Chemical continues to prioritize a wide range of collaborative activities that are shaping the future of a circular economy and sustainable value chains, and we also highlight these important interactions within this report.

**Myron Petruch**

President & Chief Executive Officer





# Sustainability Approach

## Sun Chemical's Sustainability Goals

Sun Chemical, a member of the DIC Group, has publicly stated sustainability goals encompassed in DIC Vision 2030. These goals recognize that climate change is a social imperative and that our industry has a part to play in achieving a future where the worst effects of climate change are mitigated. The DIC Group has pledged to reduce the greenhouse gas emissions of its manufacturing operation by 50% by 2030, taking 2013 as a baseline, and to be net carbon neutral by 2050.

To achieve this 2030 goal will require Sun Chemical to convert most of its electricity purchasing to green electricity. This may involve some on-site generation of electricity via photovoltaic arrays, windmills or other means for those sites that have the infrastructure to manage this, but the largest element will be green electricity purchasing from external providers. In addition to purchasing green electricity, Sun Chemical will also reduce its fossil fuel use.

Even with sites that have 100% green electricity, there will still be an incentive to save energy to achieve cost savings for Sun Chemical. Sun Chemical's Sustainability Environmental Roadmap gives Sun Chemical sites, and the people on those sites, the tools and direction to help them on the sustainability journey.














# Sustainability Approach

## Alignment with the United Nation’s Sustainability Development Goals

As part of the DIC Group, Sun Chemical has been a signatory to the United Nations Global Compact since 2010 and supports its Sustainable Development Goals (SDGs) and calls to action. The SDGs were set in 2015 by the United Nations General Assembly and are intended to be achieved by the year 2030. These 17 interconnected global goals are designed to be a “blueprint to achieve a better and more sustainable future for all.” As a raw material supplier, Sun Chemical is most closely aligned with nine of the 17 SDGs—those impacting climate change and resource conservation; sustainable use of natural resources; and food, safety and health.

Focus	Climate Change / Resource Conservation	Sustainable Use of Natural Resources	Food, Safety and Health
Social Issues	   	  	 
Primary Value of Our Products	<ul style="list-style-type: none"> <li>• Contain renewable raw materials</li> <li>• Energy saving and thermal insulation</li> <li>• Reduce weight</li> <li>• Cope with marine plastics</li> </ul>	<ul style="list-style-type: none"> <li>• Recyclable</li> <li>• Reduce waste</li> <li>• Long life</li> <li>• Reduce volume</li> </ul>	<ul style="list-style-type: none"> <li>• Health and comfort</li> <li>• Reduce food waste</li> <li>• Low VOCs* and safety</li> </ul>

\*volatile organic compounds



# Sustainability Approach

## **Sustainability Approach and Framework**

Sustainability at Sun Chemical is broadly defined as the design of products or processes that reduce environmental impacts to mitigate climate change, conserve virgin resources and/or reduce accumulation of waste as compared to the products or processes which they replace.

This overarching concept applies to all technology and product areas within the Sun Chemical portfolio and encompasses all markets where we operate. It is also a full value chain– and life-cycle–oriented approach, meaning that Sun Chemical collaborates up, down and across our various supply chains to deliver sustainable solutions.

Looking up the chain, we work with our raw material suppliers to ensure the materials they provide incorporate the sustainability characteristics we need, including responsible, ethical sourcing. At our own position in the chain, we work to minimize environmental impact of our global operations, and with peer companies in the pigments, inks, coatings and adhesives areas, we cooperate through industry associations to ensure overall alignment toward sustainability goals.

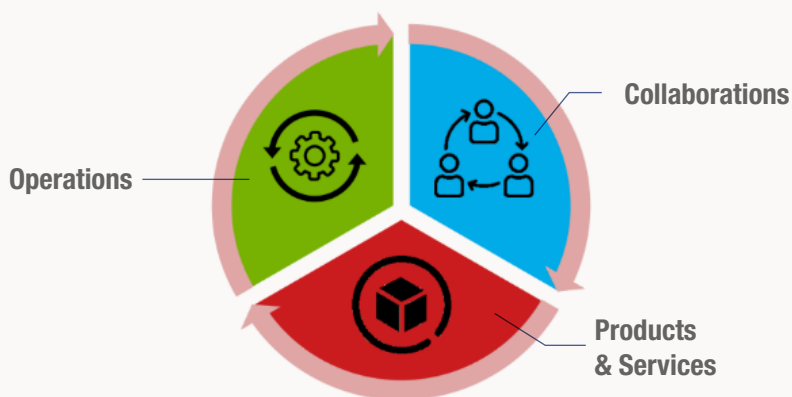
Working with downstream customers, whether packaging producers, designers and brand owners, masterbatch compounders, electronic material suppliers, cosmetic formulators, automotive suppliers or in industrial applications, we reimagine today's materials and processes and design innovative products and processes to meet the specifications and sustainability drivers across a diverse range of markets and applications. We also work with the waste management community that ultimately must collect, sort and process finished products after their useful application lifetimes. This collaboration helps us to understand the unique requirements needed to manage a more sustainable and circular end-of-life, whether through reuse or recovery, or by effective recycling.



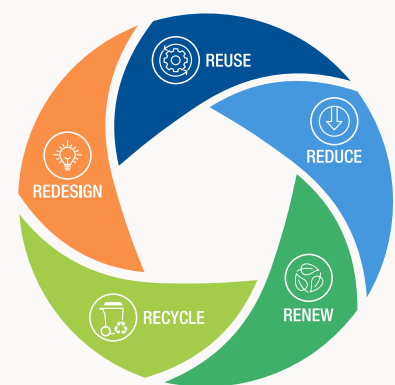
# Sustainability Approach

## Sustainability Approach and Framework

In line with DIC Vision 2030, which is dedicated to improving the human condition by safely delivering color and comfort for sustainable prosperity, Sun Chemical uses what we call “the five Rs”—reduce, reuse, recycle, renew and redesign—to guide our sustainability practices through three pillars of our business—operations, product and service development, and cross-industry partnerships and collaborations. These approaches span all our business units—inks, coatings, adhesives, color materials and advanced materials—and they guide the way we develop, manufacture and distribute products.



Three Pillars of Sun Chemical's Business



Sun Chemical's Sustainability Framework: The Five Rs

## Acquisitions Strengthen Sun Chemical's Sustainability Initiatives

### Acquisition of BASF Colors & Effects

In 2021, DIC Corporation and Sun Chemical Group acquired BASF's global pigments business, known as BASF Colors & Effects (BCE). Colors & Effects is a prominent global manufacturer of high-performance pigments, effect pigments (for cosmetics) and specialty inorganic pigments, based in Europe and with sites around the world.

The acquisition brings together the complementary portfolio of technologies, products, manufacturing assets, supply chain and customer service, and reinforces the DIC/Sun Chemical Group's position as a leading global pigments manufacturer.

# Sustainability Approach

## Acquisitions Strengthen Sun Chemical's Sustainability Initiatives

The business is now fully integrated with Sun Chemical's previously existing Performance Pigments group to form our Color Materials Division. We leverage our strong market relationships and unparalleled agility to meet market demands and find innovative and socially responsible solutions for our customers.

Color Materials serves a broad variety of market segments ranging from cosmetics, plastics, inks, coatings and building materials to home and personal care, masterbatch and specialties such as agriculture, food and beverage, and consumer products.

Following our sustainability framework based on the three pillars, we support the United Nations Sustainable Development Goals with our sustainable pigment solutions focusing on climate change, resource conservation, sustainable use of natural resources, and food, safety and health.

### Global Manufacturing Footprint



A world map where different regions are highlighted with vibrant, shimmering pigments. The Americas region is highlighted in orange and contains a callout box with the number 15. Europe is highlighted in blue and contains a callout box with the number 13. Asia is highlighted in grey and contains a callout box with the number 5. Other regions like Africa, Australia, and South America are also visible but not highlighted with callouts.

Americas:  
15

Europe:  
13

Asia:  
5

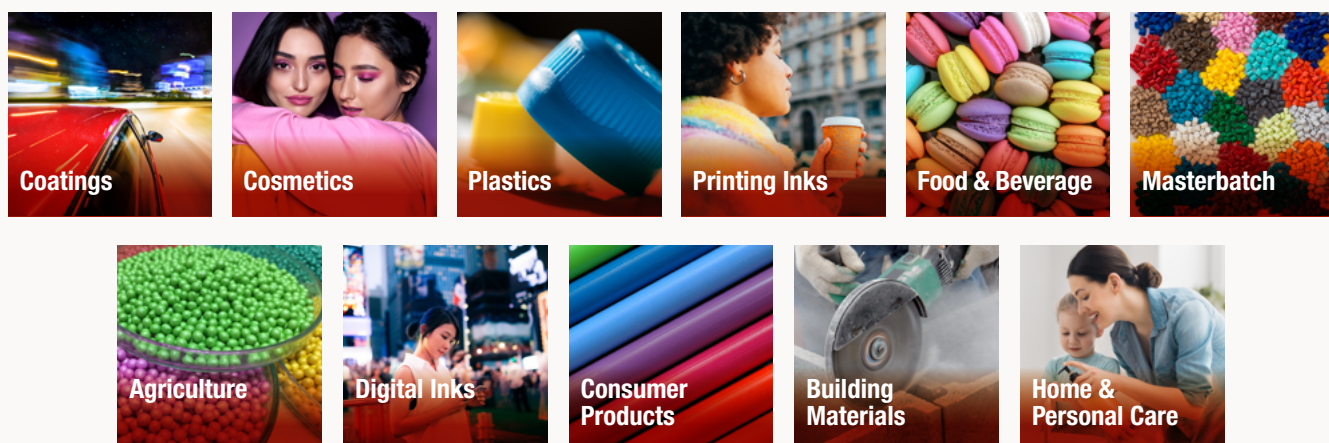


# Sustainability Approach

## Acquisitions Strengthen Sun Chemical's Sustainability Initiatives

Examples include pigments for solar heat management, solutions that enable recyclability, ethically sourced natural mica, natural wax dispersions, natural colorants for foods and beverages, and pigments for sensitive applications.

### Markets Served by the Color Materials Division



### Acquisition of SAPICI

Another strategic acquisition that Sun Chemical completed in 2022 was the purchase of the Italian-based polyurethane manufacturer SAPICI. SAPICI manufactures advanced and high-performance polyurethane products for diverse applications including coatings, flexible packaging, industrial adhesives, prepolymers and inks.

With SAPICI, Sun Chemical reinforces its integrated supply strategy in the packaging market by adding capabilities to develop and produce unique polymers for the entire portfolio of inks, coatings and lamination adhesives.

In particular, the acquisition of SAPICI transforms Sun Chemical into an integrated player in the lamination adhesives market, directly owning assets, technologies and resources to improve the product portfolio.

# SAPICI

**SunChemical**  
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Color & Comfort

SAPICI's core competencies in the manufacturing of ultralow-monomer isocyanates-based polyurethane solutions also allow Sun Chemical to further address both current and future trends in sustainability, compliance, food contact, health and safety—reinforcing our commitment to responsible care.





# OPERATIONS





# Operations

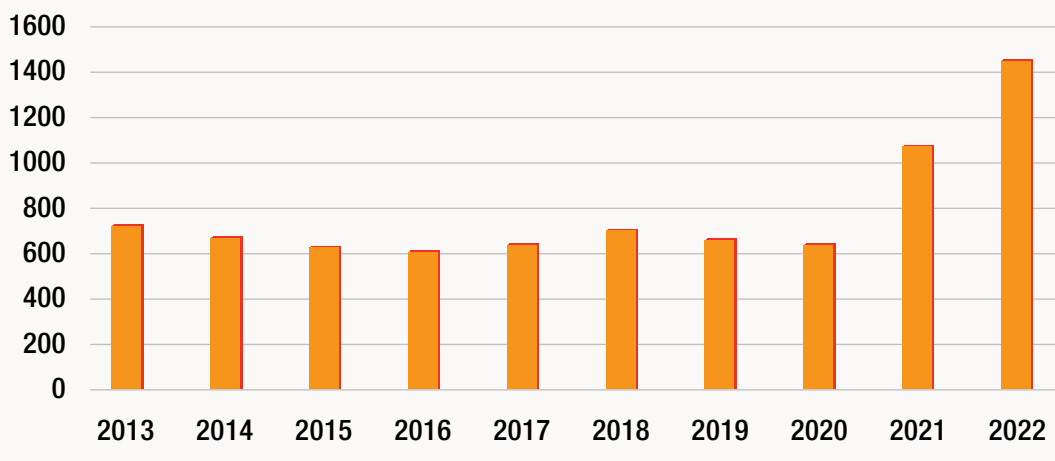
## Energy Reduction

As the acquisition of Colors & Effects and the necessary divestiture of Sun Chemical's Bushy Park, South Carolina, operations both happened part way through 2021, they have added complexity to the data. To help visualize the environmental impact that Sun Chemical has now, and the targets that Sun Chemical, as part of the DIC Group, is committed to achieve by 2030, a latest estimate (LE) for 2022 has been created along with a retrospective calculation for a 2013 baseline.

The 2022 estimate is comprised of three CO<sub>2</sub>/greenhouse gas-generating sources for Sun Chemical's energy requirements:

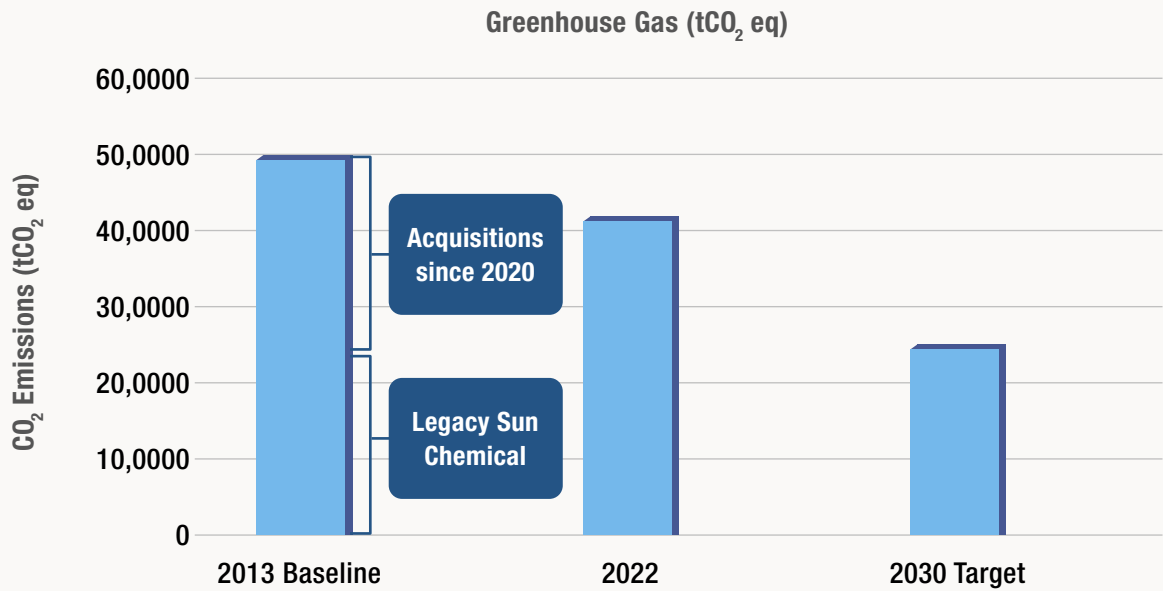
- Fossil fuels (mainly natural gas), which are primarily burned directly in boilers and are used to provide heating for buildings and, in some cases, to fuel higher-energy-reaction processes.
- Electricity, which is purchased, but as countries move to greener generation processes and losses in electricity transmission are reduced, we expect the greenhouse gas equivalent of this electricity to improve over time.
- Steam, which is purchased in arrangements where Sun Chemical is part of industrial parks, is used as an energy source for some of the pigment manufacturing sites.

**Total Energy Used (GWh/yr)**  
(Scope 1 & 2)



# Operations

## Energy Reduction





# Operations

## Case Study: Solar Arrays Significantly Reduce Energy Use at German Sun Chemical Location

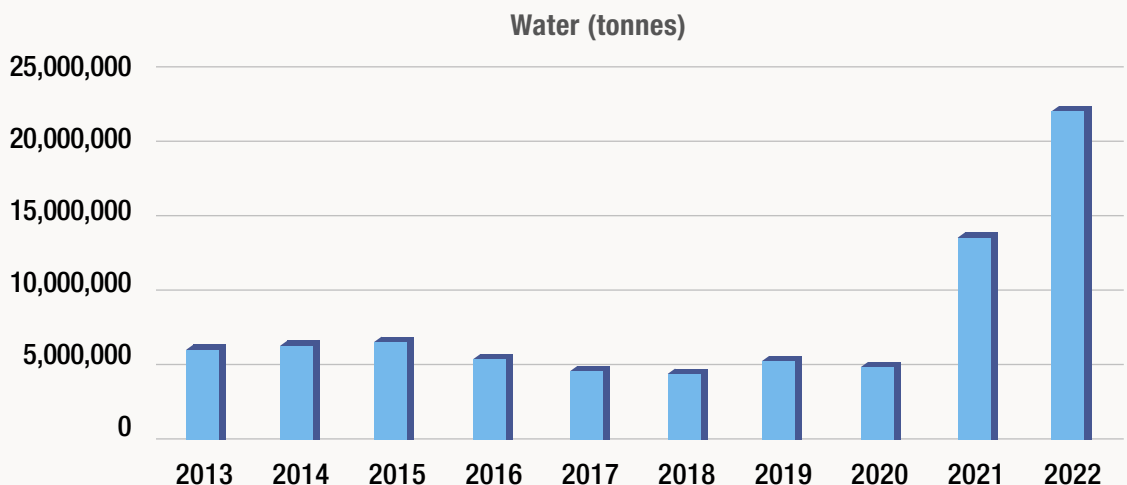
Sun Chemical continues to work on programs to reduce the environmental impact and especially greenhouse gas emissions coming from its manufacturing operations in order to meet the 2030 target. An example of this can be seen in a Sun Chemical facility in Germany, where a solar power array provides a significant amount of the energy used by this site. Other solar array projects are in progress where appropriate, based on site energy consumption and land availability.

Other examples of environmental impact reduction efforts include energy-efficiency projects that also offer cost savings. A particular focus for many sites is the capture and reuse of waste heat.



## Water Consumption

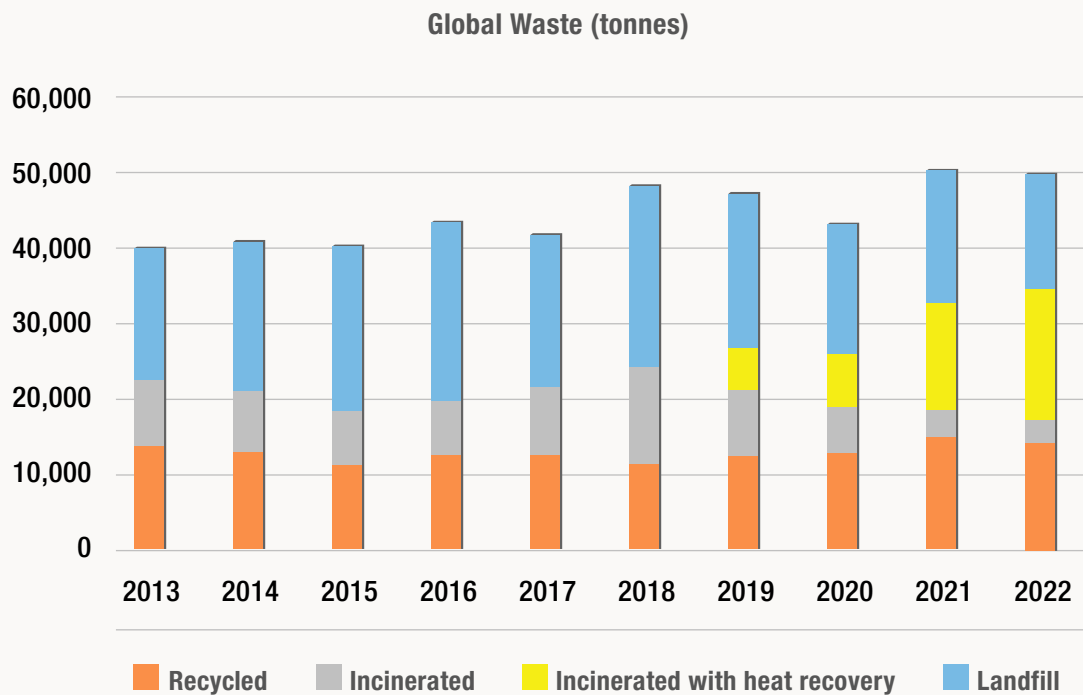
Sun Chemical’s water intake has increased with the acquisitions through 2021. Water intake level for 2022 is representative of the current company scope.



# Operations

## Waste Reduction

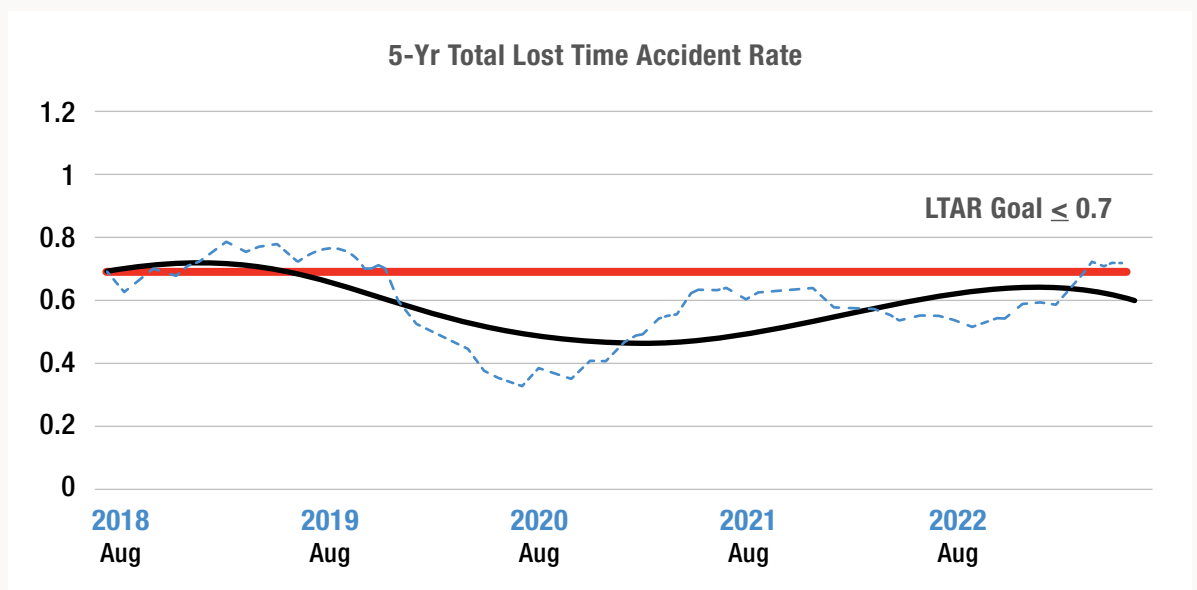
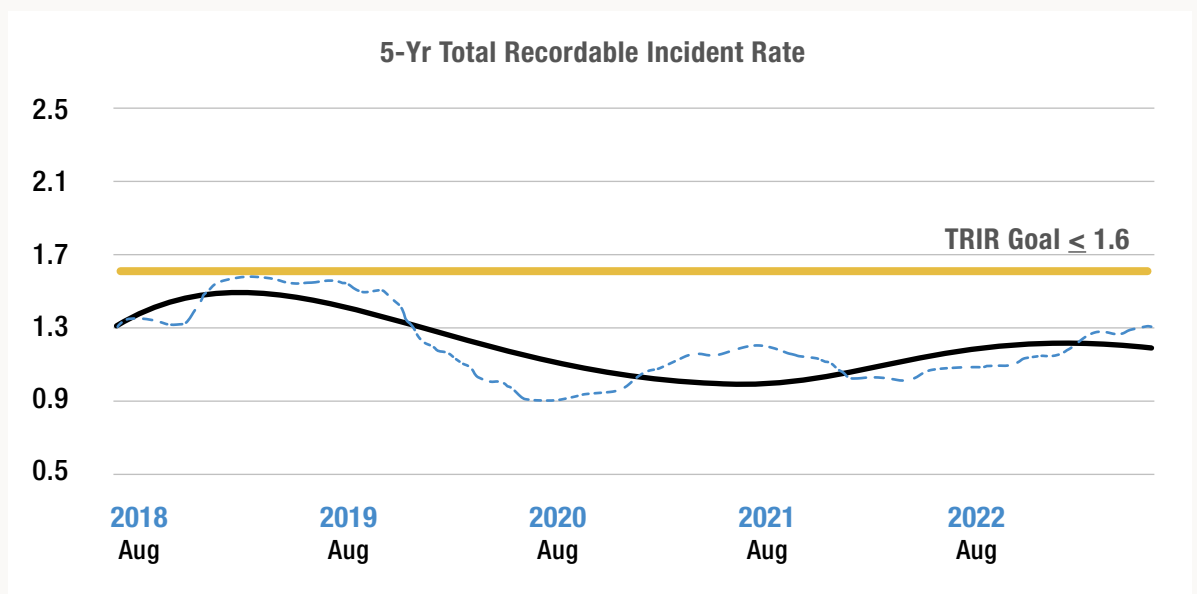
Despite the substantial acquisitions Sun Chemical has made in 2021 and 2022, this has not resulted in an increase in the amount of waste. The quantities of waste incinerated without energy recovery and the quantities of landfill waste continue to decrease.



# Operations

## Safety Indicators

Sun Chemical, like many in the chemical industry, is slowly transitioning into a new normal with our pandemic response. Sun Chemical's safety-first approach is the cornerstone of our safety culture. The addition of the Colors & Effects division from BASF is now included in our safety statistics and continues to be a positive influence on our culture.



--- Data  
— 12-month rolling average  
—/— Maximum-level goals



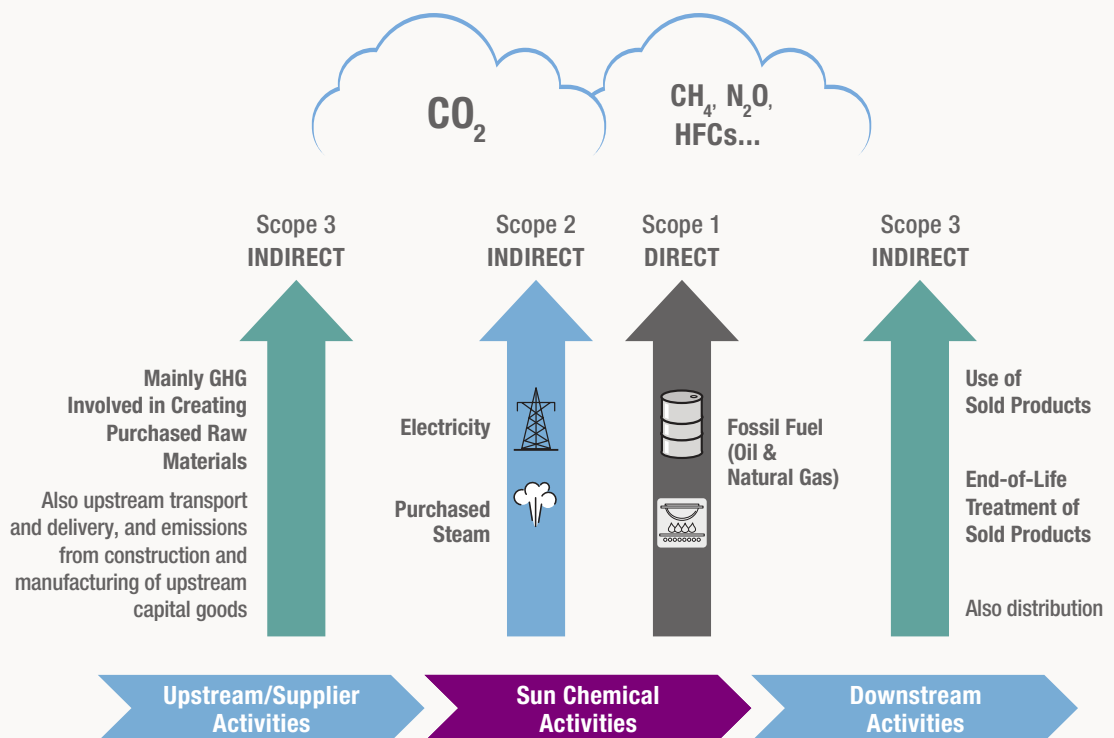
# Operations

## Manufacturing Operations Targets

Sun Chemical understands that environmental impacts, including greenhouse gas emissions, are potentially present at all steps within the supply chain. For the raw materials purchased, Sun Chemical has a significant procurement sustainability initiative utilizing EcoVadis as a corporate social responsibility rating platform. These efforts go alongside Sun Chemical activities aimed at reducing the environmental impact and increasing the sustainability credentials for the raw materials we purchase.

For our own manufacturing operations, we have our group target of a 50% reduction in the CO<sub>2</sub> equivalent by 2030 and net carbon neutral by 2050. This will be achieved by a combination of transitioning to green electricity—including both purchased and on-site-generated electricity—along with fossil fuel reductions coming mainly from energy-efficiency improvements.

For the products we manufacture, we have a heavy emphasis on the development of products that assist and enable our customers in meeting their sustainability goals.





# PRODUCTS AND SERVICES



# Products and Services

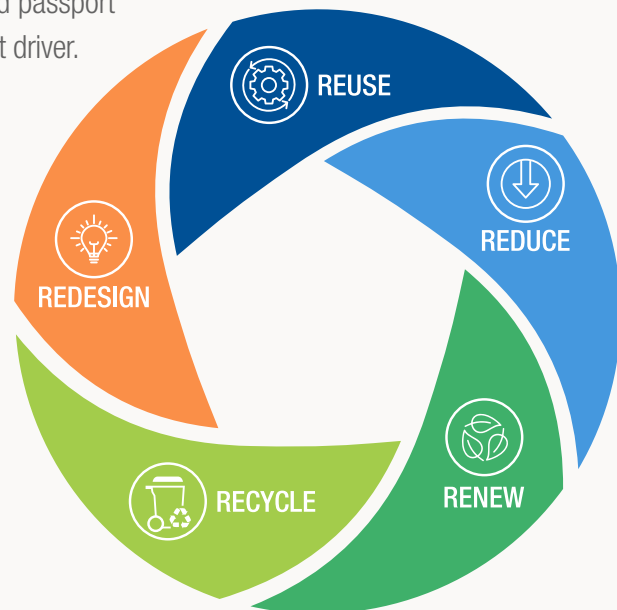
## Incorporating Our Sustainability Approach into the Products We Offer

Sustainable development at Sun Chemical is defined as the design of products or processes that reduce greenhouse gas emissions related to climate change, conserve virgin resources and/or lower the accumulation of waste compared to conventional products or processes they replace.

This definition aligns activities across a wide range of product technologies and market areas. Once we understand the needs or opportunities in any particular market segment, a 5R framework organizes our activities and roadmap for sustainability-enabling technologies. These 5Rs are Reuse, Reduce, Renew, Recycle and Redesign—all of which support a circular economy and reductions in carbon footprint.

Sun Chemical's ink and pressroom products offer a fully integrated solution that includes pigment dispersions, inks, coatings and adhesives, as well as color management for the packaging market. Our color materials solutions, including pigments, dyes and preparations, provide innovative conventional and effect solutions for the coatings, cosmetics, printing inks, plastics and specialties markets. Our advanced materials are used within a wide range of applications and markets, including inkjet, electronics, circuit boards and printed electronics, automotive, aerospace, textiles and security, such as currency and passport applications. In each area, sustainability is an important driver.

With specific focus on the packaging segment and with respect to the 5Rs, significant effort continues toward product technologies that enable **Reuse** by incorporating post-consumer recycled materials, or with protective coatings and resistant inks that can withstand multiple wash cycles, for reusable articles or packaging.





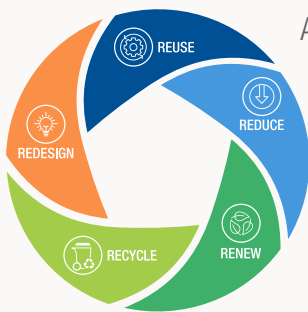
# Products and Services

## Incorporating Our Sustainability Approach into the Products We Offer

Our products also help to **Reduce** overall packaging weight, through protective and barrier coatings, and also barrier-adhesive technologies, which eliminate protective film layers and also help recyclability of those structures. We also deliver more efficient ink technologies to minimize waste or energy consumption at our converter customer facilities.

We design product lines with high levels of **Renewable** content, replacing fossil fuel-based raw materials with responsibly nonfood-sourced natural alternatives. This increases circularity and immediately translates into CO<sub>2</sub> emission reductions.

We also engineer products to enhance the ability to **Recycle** film and fiber-based packaging structures by a range of recycling, repulping and composting processes.



And we support fundamental **Redesigns** in packaging and printing processes. For example, shifting from multi-material to mono-material structures or from laminations to mono-webs plays a critical role in improving recyclability or even plastic to paper transitions, where appropriate.

Following is a small selection of the sustainable products and innovations from the past year.

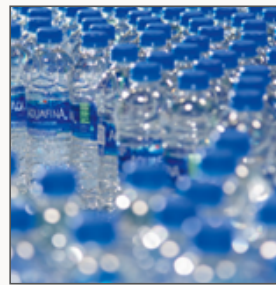


# Products and Services

## Solutions for the Packaging Market

### Narrow-Web Tag and Label Sustainability Portfolio

Sun Chemical launched a comprehensive and innovative sustainability-enabling series of offerings specifically for the narrow-web tag, label and sleeve market, which was recognized by TLMI's Calvin Frost Sustainability Leadership Journey Award. The award is earned by a TLMI member company that has publicly stated goals and begun implementing short-term actions aimed at long-term metrics to improve their business through sustainability efforts.



An important element of the recognition was the sustainability of the product portfolio, including:

- Sun Chemical's **SunVisto® AquaGreen** water-based renewable inks series has significantly higher levels of biorenewable naturally derived resin content. These carefully formulated inks are not only resistant to abrasion, water and grease, they offer superior performance and lower carbon footprint through the replacement of fossil fuel-derived raw materials with renewable alternatives.
- **SolarFlex UV**-curable ink series is designed to provide high adhesion without the need for a primer for a range of challenging substrates, which lightweights packaging and reduces carbon footprint. An additional sustainability benefit is the use of less energy and decreased inventory and waste at the converter site.
- **SolarFlex™ CRCL** ink technology for shrink and nonshrink applications is designed to be used without a primer and to wash off a label or be retained on the label, depending on the material to be recycled, with no discoloration of the wash water or recycled plastic.
- **SunCure** high-resistance UV flexo coatings enable a mono-web label structure as an alternative to laminations, which saves adhesive, film, processing time and final label weight—all reducing carbon footprint. Sun Chemical also offers solvent- and water-based versions of the coating.
- The **Sun Chemical Dispenser Program** utilizes ink-dispensing technology that mixes exactly what is needed when it is needed, allowing reductions in cost and inventory. The technology is supported by Sun Chemical through calculations to measure the specific carbon footprint savings for converter operations and locations.

# Products and Services

## Solutions for the Packaging Market

### Copper-Free Blue Ink for Compostable Packaging

To overcome application limits on total metals content for compostable packaging, Sun Chemical has launched a copper-free compost-compliant blue ink alternative to standard copper phthalocyanine blue, which delivers access to full-color brand-owner designs without compromising compostability.



### Oven-Safe Renewable Inks

**AquaHeat** oven-safe inks have been launched for a range of paper and film food-packaging applications requiring resistance to home or industrial oven bake temperatures. The inks additionally offer high levels of biorenewable content, for overall carbon footprint reductions.

### Biorenewable Coatings

**WBDEV956**, a new water-based coating for sheetfed commercial printing and folding cartons, has been launched. The new product offers print speed and resistance performance equivalent to current overprint varnishes used in those applications, but incorporates 40% biorenewable content stemming from a pinewood derivative. New UV- and EB-curable coatings for beverage cartons based on similar chemistry have also been developed, providing cost-effective bio-based products with no bisphenol A (BPA) or benzophenone content.

### Folding Cartons Non-food



### Folding Cartons Food



### Advertising, Direct Mail





# Products and Services

## Solutions for the Packaging Market

### Certified Compostable Matte Coating

The standards for certification and/or labeling of compostable packaging structures are strict, requiring any layer representing more than 1% of the weight of the structure to be inherently biodegradable at the conditions specified.

Matte coatings are often used on packaging such as pouches or sachets to provide more shelf appeal as well as an improved feel, and generally represent more than 1% of the weight. For such applications, Sun Chemical introduced **SYSCS011**, a solvent-borne coating that has been certified biodegradable, allowing converters to build compostable matte packaging structures ready for certification.



### Moisture-Vapor Barrier Coatings for Paper Packaging

Sun Chemical has launched **Vaporbloc BARV656** and **Vaporbloc BARV734** moisture vapor barrier coatings for paper packaging applications. The products offer heat-sealing properties, provide a barrier to water, oil, grease and moisture, and have been designed to replace polyethylene (PE) co-extrusion or PE film lamination in industrial or food-packaging applications. By allowing the removal of the PE layer, these coatings, which can be applied by converters, improve the recyclability of paper structures.



# Products and Services

## Solutions for the Packaging Market

### SunColorBox Digital Color Management

Sun Chemical's **SunColorBox** digital color management solution creates a more sustainable process for the entire graphic arts supply chain. Communicating color as digital data rather than through physical samples streamlines the proof-to-production process.



**PantoneLIVE** and **myColorCloud** are perfect examples where a cloud-based digital database of color standards is communicated through the most common tools for the entire supply chain, and with the addition of Sun Chemical's **SunDigiProof** system to create color-accurate mockups, expectations for color can be set correctly up front, reducing potential time, effort and rework when producing packaging for brand owners.

**SunECG** gives printers the opportunity to build a more sustainable approach to printing by creating traditional blended spot colors from an extended color gamut ink set. This eliminates the need to change ink on press from job to job, greatly reducing set-up time and also allowing multiple designs to be printed across the sheet/web.

**SunMatch** is an ink formulation software tool that takes into account the variables in the process so the right ink can be delivered to production the first time, saving printers make-ready time and associated waste. The results of the production can then be verified with **SunColorQC** or **SunConnect** software, creating an objective decision-making process for color.

SunConnect is also a user-friendly solution to enhance digital communication between flexo water-based printers and Sun Chemical Color Centers for quick turnaround of color-match requests, removing the need for postage and transport of samples.

The overall result is savings in time, energy, raw materials and waste for everyone in the workflow.

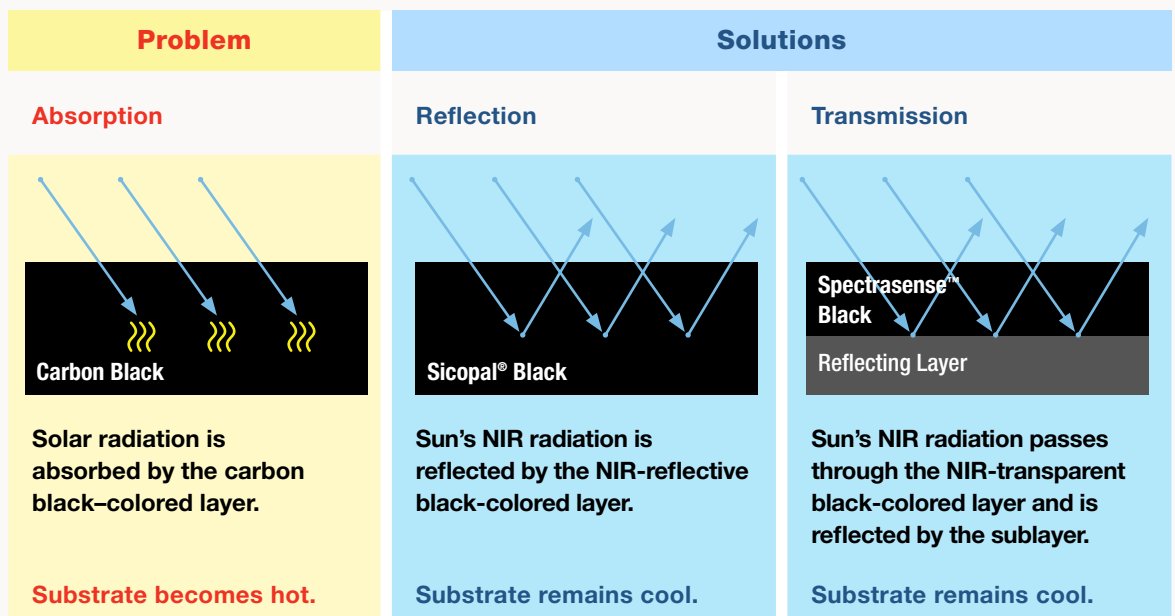
# Products and Services

## Color Materials Solutions

### Functional Black Pigments

**Sicopal® Black** and **Spectrasense™ Black** grades are NIR-reflective or transparent, respectively, to enable solar heat-management solutions or detection options for recycling of black plastics. For solar heat-management solutions, these functional black pigments allow dark surfaces to stay cooler due to less heat buildup and thereby reduce the energy for air conditioning or even the urban heat island effect.

From a recycling standpoint, standard carbon-black pigments absorb NIR signals that are used to identify incoming materials in typical recycling facilities, meaning that plastics pigmented with these materials cannot be identified and sorted correctly. The functional black pigments allow proper detection to enable sorting and recycling of the plastic, reducing the amount of plastic that would otherwise be landfilled or incinerated.





# Products and Services

## Color Materials Solutions

### Mica-Based Effect Pigments for Cosmetics

Mica is an *abundant* mineral found all over the world, meaning that the current known sources are considered by the United States Geological Survey (USGS) to be more than adequate to meet anticipated world demand in the foreseeable future. Mica is safe and is commonly used as a substrate in pearlescent pigments that add luster and sparkle.

Sun Chemical owns and operates the Hartwell, Georgia, mine in the United States. Here, mica flakes are mined, processed and then bagged and tagged for easy tracing. To become an effect pigment, mica is sent to one of our two manufacturing facilities in the USA—North Charleston, South Carolina; or Peekskill, New York.

At the Hartwell site, we minimize the environmental impact by:

1. Using recycled water from an onsite pond
2. Refilling mining plots and reforesting land
3. Continuously improving processes to mine less and yield more

The Hartwell mine is audited at least twice a year by the Mine Safety and Health Administration, a U.S. government agency under the Department of Labor, and audit results are publicly available. Only highly trained and certified miners are employed or contracted to mine mica at the Hartwell site, with our employees each having an average of 20 years of work experience.



# Products and Services

## Advanced Materials Solutions

### Printed Electronics

Sun Chemical has partnered with In2tec, based in the United Kingdom, to develop a more sustainable approach to electronics manufacturing. The resulting patented technology solution, called **ReUSE**, utilizes a combination of processes and a suite of materials that lower energy usage and reduce complexity in manufacturing, as well as enabling increased recycling and reusability of electronics assembly components.

A first application example was a redesign of industrial ceiling luminaires, which resulted in substantial estimated reductions in CO<sub>2</sub> emissions compared to traditional luminaires, as well as greatly increased end-of-life recovery and recyclability of individual parts for secondary use.



# Products and Services

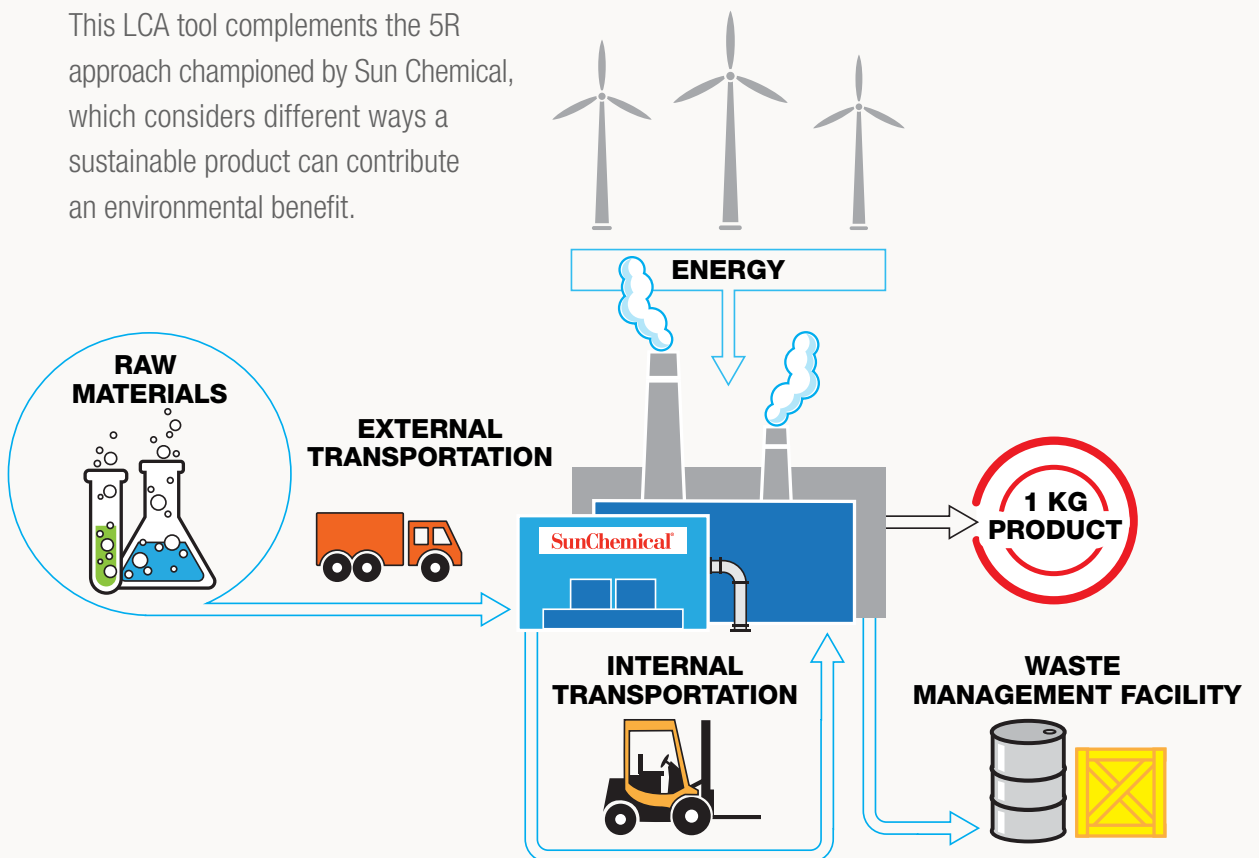
## Life-Cycle Assessment

To support these product and process development initiatives, in 2022 Sun Chemical invested in life-cycle assessment capabilities to allow evaluation and prioritization of different environmental solutions and development options, provide product carbon footprints as requested by customers, and enable robust and credible market communications.

Life-cycle assessment (LCA) is a methodology for assessing environmental impacts associated with all the stages of a product, process or service. Due to the large number of products sold, Sun Chemical has chosen to develop in-house life-cycle assessment capability.

Sun Chemical has purchased the **GaBi LCA** software tool from Sphera. Using a combination of primary data coming from suppliers, industry-averaged data and expert opinion, Sun Chemical is able to give objective cradle-to-gate global warming-potential data for products or, alternatively, work with others in the supply chain to consider environmental impact comparisons during use-phase and at end-of-life in different recycling waste streams.

This LCA tool complements the 5R approach championed by Sun Chemical, which considers different ways a sustainable product can contribute an environmental benefit.







COLLABORATIONS / SOCIAL  
RESPONSIBILITY





## Collaborations / Social Responsibility

An important pillar of Sun Chemical's sustainability approach is collaborations—interacting with like-minded partner organizations and other stakeholders up, down and across the global value chains of the markets we serve.

A key element of collaborations is Sun Chemical's participation and advocacy within respected cross-industry associations and nonprofit organizations with goals that bring the collective power of membership to deliver lasting and meaningful solutions to the most pressing environmental issues.

Among the cross-industry alliances where Sun Chemical is active are various organizations that are focused on advancing packaging sustainability, including:

- Circular Economy for Flexible Packaging (CEFLEX)
- 4evergreen (for fiber-based packaging circularity)
- RecyClass (a part of Plastic Recyclers Europe) in Europe
- Association of Plastic Recyclers (APR), which represents international interests
- Sustainable Packaging Coalition (SPC), a member of the environmental nonprofit GreenBlue
- HolyGrail 2.0, which helps advance enhanced sorting and higher-quality recycling rates for packaging in the EU
- Round Table for Sustainable Palm Oil (RSPO), which sets minimum sustainability requirements for sustainable palm oil

In each case, Sun Chemical brings active expertise and sustainability leadership to workstreams and collaboratives sponsored through the associations.

Sun Chemical has also joined the Circular Plastics Initiative (CPI) through the Dutch Institute for Sustainable Process Technology (ISPT), where we are sponsoring projects working toward advancing integrated solutions for recycling, as well as understanding in detail the losses and emissions in recycling processes.



RecyClass



# Collaborations / Social Responsibility

## Other Examples of Collaboration



Targeting compostability as part of their sustainable commitment, Corapack selected a certified home and industrial compostable solvent-free laminating adhesive from the Sun Chemical **SunLam** range to produce a coffee capsule's lidding.



In order to produce more sustainable and migration-safe paper plate alternatives, Sun Chemical partnered with Exclusive Trade S.r.l. to substitute the protective plastic layer often still found in paper-based food-contact materials by combining direct food contact **SunPak DFP** sheetfed inks with the **SunSpec Sunstar** protective varnish.



Collaboration with the VPK Group led to the conversion of their sites in France to Sun Chemical **SunVisto AquaGreen** technology, a range of water-based inks and coatings with high biorenewable content for reducing carbon footprint versus conventional alternatives.



The oneBARRIER PrimeCycle collaborative project with Bobst and other partners, which creates industrially viable recycle-ready mono-material ultrahigh and high-barrier flexible packaging, uses Sun Chemical polyurethane inks, overprint varnishes, barrier coatings/primers and barrier-laminating adhesives.



# Collaborations / Social Responsibility

## Science-Based Targets Initiative

With our ongoing focus on reducing environmental impact, Sun Chemical and DIC Corporation signed onto the Science-Based Targets initiative. The commitments that the DIC Group, including Sun Chemical, have made are:

- Reduce greenhouse gas emissions 27.5% by 2030 from base year 2019.
- Reduce absolute greenhouse gas emissions from capital goods, fuel- and energy-related activities, upstream transportation and distribution, waste generated in operations, and end-of-life treatment of sold products 13.5% within the same timeframe.
- Ensure 80% of its suppliers by spend, covering purchased goods and services, will have science-based targets by 2027.

This DIC Group Science-Based Targets initiative has been validated by the SBTi.



SCIENCE  
BASED  
TARGETS

# Collaborations / Social Responsibility

## Sustainable Procurement

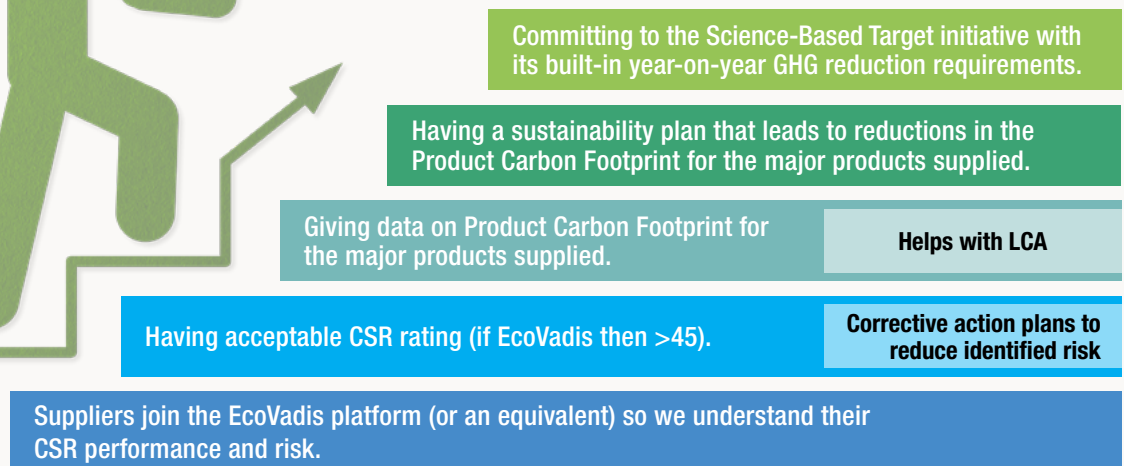
Sun Chemical continues to drive its suppliers in the direction of improved sustainability. Sun Chemical utilizes EcoVadis to score its suppliers with 71% of suppliers (by addressable spend\*) on the EcoVadis platform. The target for 2023 is to increase the number of suppliers on the EcoVadis platform to 80% (by addressable spend\*).

Sun Chemical encourages suppliers on the EcoVadis platform to meet minimum scoring levels and requires corrective actions from those suppliers that do not achieve the targets.

For suppliers that meet the scoring expectations and have no obvious risk areas, the focus changes to first getting environmental impact data for the raw materials purchased and then getting a plan that will result in those values decreasing over time.



For suppliers already committed to reducing their total environmental impact, we then encourage them to become part of the Science-Based Targets initiative with the expectation that 80% of our suppliers by spend, covering purchased goods and services, will have science-based targets by 2027.



\*Addressable spend is defined as situations where procurement can negotiate with suppliers to achieve business goals.

# Collaborations / Social Responsibility

## Sustainable Procurement

100% of our purchasing category leaders have been trained in the use of the EcoVadis tool and in guiding Sun Chemical suppliers along this sustainability journey.

Our overall suppliers' EcoVadis scores have increased through our engagement:

	August 2022	January 2023	Trend	EcoVadis Avg.
<b>Average Overall Score</b>	57.4	59.3	+1.9	44.9
<b>Average Environment Score</b>	61.5	64.2	+2.7	44.9
<b>Average Labor &amp; Human Rights Score</b>	57.9	59.6	+1.7	47.7
<b>Average Ethics Score</b>	53.4	55.3	+1.9	43.0
<b>Average Sustainable Procurement Score</b>	48.8	50.6	+1.8	37.0

Sun Chemical currently has 182 suppliers on the EcoVadis platform. Our supply base is outperforming the EcoVadis averages within each category by margins of 11.9 to 19.3 points. We continue to monitor and approve in the appropriate sectors and will be engaging further with more corrective actions for even better results.

When 167 suppliers were reevaluated, the findings showed that our supply base engagement is producing results, with 68% producing improved scores. Average overall scores increased, with the biggest increases in the environment and sustainable procurement pillars. Our score increased 4.3 points compared to the EcoVadis average increase of 3.2 points.



# Collaborations / Social Responsibility

## Social Media, Current Events and Buzz

Sun Chemical shares articles, press releases, industry updates and information about events and webinars on our social media platforms. Social media is a key piece in how we communicate our approach to sustainability and other important topics.

In 2021, Sun Chemical began using the branded hashtag #SunSustainability on LinkedIn and Twitter to better organize the sustainability discussion in the marketplace. The goal is to highlight areas of importance to help drive this critical topic forward. Some key topics we discuss include:

1. Education
2. Legislation
3. Regulatory updates
4. Specific endorsements—products or upcoming speaking engagements

Sun Chemical is now entering the third year of focused posts that drive engagement and awareness. The social platforms help to elevate Sun Chemical's thought leadership position and drive engagement with our customers, associations and industry partners to continue the conversation.

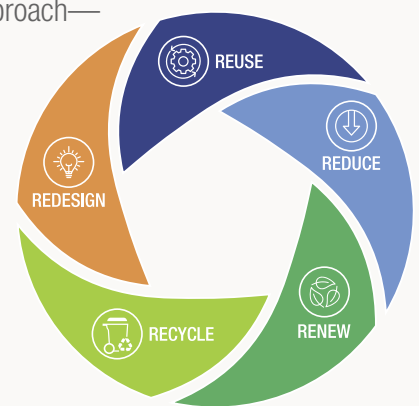
Make sure to follow [#SunSustainability](#) on [LinkedIn](#) and [Twitter](#)—engage with our posts, polls and updates.



# SUSTAINABILITY LEADERSHIP

Sustainability is nothing new at Sun Chemical. For over a decade, Sun Chemical has shown its commitment and market leadership. With a focused cross-functional sustainability team; a cohesive strategy focused on operations, products and services, and collaborations; and a guiding framework positioned around the 5Rs approach—

**Reuse, Reduce, Renew, Recycle and Redesign—** Sun Chemical has continued to strengthen its message and advance its portfolio of enabling solutions in the marketplace to be the clear sustainability partner of choice.



Additional resources and information are available at [www.sunchemical.com/sustainability](http://www.sunchemical.com/sustainability), and at [#SunSustainability](#) on [LinkedIn](#) and [Twitter](#).



## **A partner who transforms with you.**

Today's environment requires more than change. It demands transformation—and a partner who's willing to transform with you. Sun Chemical, a member of the DIC Group, is a leading producer of packaging and graphic solutions, color and display technologies, functional products, electronic materials, and products for the automotive and healthcare industries. Together with DIC, Sun Chemical is continuously working to promote and develop sustainable solutions to exceed customer expectations and better the world around us. With combined annual sales of more than \$8.5 billion and 22,000+ employees worldwide, the DIC Group companies support a diverse collection of global customers. Sun Chemical tailors solutions to unique customer needs and brings new ideas and the latest technology to market. As you move forward into a world of stiffer competition, faster turnarounds, more complex demands and sustainable products, count on Sun Chemical to be your partner.

## **Experience. *Transformation.***

### **Contacts and Other Information**

For more information regarding Sun Chemical's sustainability policy and effort, please contact:

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