

Driven by science. Designed for the future.



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About the 2024 report

This is the fourth sustainability report published by Advancion Corporation (“Advancion” or “Company”), formerly ANGUS Chemical Company. Our ongoing commitment to disclosing our sustainability strategy, initiatives, and performance highlights our dedication to transparency and accountability. Through clear and consistent reporting, we offer insight into our environmental impact, resource stewardship, and pursuit of meaningful, sustainable progress. This openness helps build trust with all our stakeholders—including investors, customers, employees, and regulatory agencies.

Feedback and questions about the report

For copies of our publicly available policies, or for more information regarding our business operations, please visit advancionsciences.com. A downloadable version of the 2024 Sustainability Report and GRI Index is available on our website at advancionsciences.com/sustainability.

For questions, comments and suggestions about our report, please contact:

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Reporting period

Operations and activities for the fiscal and calendar year beginning January 1, 2024, and ending December 31, 2024. This report also contains information on other key sustainability activities occurring in the first half of 2025.

Reporting scope

Facilities owned and directly operated by Advancion and its affiliates during 2024, including select data related to Expression Systems, LLC, which was acquired by Advancion in November 2022.

Reporting framework

The Advancion 2024 Sustainability Report has been prepared in accordance with the GRI Sustainability Reporting Standards 2021 (GRI Standards), as well as other standards issued by the Sustainability Accounting Standards Board (SASB) and the United Nations Sustainable Development Goals (UN SDGs). The data and disclosures in this report are for the full year ending December 31, 2024, unless otherwise stated. In some cases, numbers and percentages in the report may reflect estimates or approximations and may rely on assumptions. This report also contains statements regarding targets, plans, strategies and objectives that are “forward-looking” and aspirational in nature.

Restatements

There are no restatements and no changes from previous reports in terms of scope and / or boundaries included.

External assurance

Data included in our 2024 Sustainability Report was aggregated, analyzed and reviewed by Advancion’s Environmental, Health and Safety (EH&S) department; Advancion senior management; the Advancion Board of Directors; and other key internal stakeholders. While our data undergoes a robust internal quality control process, it has not undergone a third-party validation and / or assurance process in its entirety. We are evaluating obtaining external assurance for our data collection and sustainability reporting process in the future.

About Advancion

Advancion, a portfolio company of Ardian and Golden Gate Capital, is a global leader in the development and manufacturing of high-value specialty ingredients and consumables serving the biotechnology, pharmaceutical, personal care, consumer, and industrial markets. With a heritage spanning more than 80 years, Advancion is recognized for its proprietary chemistry platforms and consistent product quality that supports innovation and performance in critical applications worldwide.

Our differentiated portfolio includes multifunctional additives, nitroalkane chemistries, and high-purity life sciences ingredients that enhance the performance, stability, safety, and sustainability of end-use formulations. From biologics and advanced therapeutics to coatings, metalworking fluids, and personal care products, our solutions are engineered to meet the evolving needs of regulated and performance-driven industries.

Through Expression Systems—an Advancion company—we offer advanced cell culture media, cell lines, molecular tools, and reagents used in the research, development, and commercial manufacturing of cell and gene therapies. This capability supports the rapidly expanding field of biopharmaceutical innovation.

With manufacturing facilities in the U.S. and Germany and technical centers across key global markets, Advancion provides reliable supply, deep technical expertise, and environmentally responsible solutions. Many of our products are designed with a favorable environmental profile, helping customers meet or exceed increasingly stringent global sustainability, safety, and regulatory standards.



In 2025, Advancion achieved EcoVadis Gold Recognition Level in sustainability performance for the fifth consecutive year and seventh year overall since we first began participating in the independent assessment program in 2017. EcoVadis is one of the world's most comprehensive sustainability rating platforms, benchmarking company performance against international standards such as the Global Reporting Initiative (GRI), the United Nations Global Compact, and ISO 26000.

With an overall score of 81 out of 100—a six-point improvement over the previous year—Advancion now ranks in the top 2% of companies evaluated globally by EcoVadis in the past 12 months. The Company's 2025 score reflects measurable gains across all four categories evaluated: Environment, Labor and Human Rights, Ethics, and Sustainable Procurement.

About Advancion



Global Headquarters: Buffalo Grove, Illinois, USA

Market Sectors		
Life Sciences	Personal Care and Consumer	Performance Ingredients
End Markets	Agriculture	Beauty and Personal Care
	Bioprocessing and Biopharmaceuticals	Electronics Chemicals
	Diagnostics	Household and Industrial Cleaning
	Pharmaceutical Synthesis	Residential Paints and Coatings
		Chemical Manufacturing
		Industrial Paints and Coatings
		Leather Tanning
		Liquid Hardeners
		Metalworking Fluids
		Oil and Gas
		Synthetic Rubber
		Water Treatment

2024 facts and figures:



405 full-time employees

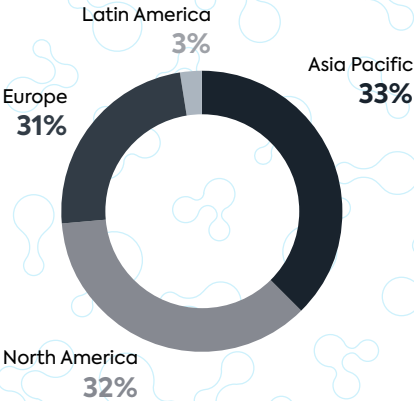


80+ years of innovation



120+ countries where our products are sold

2024 sales revenue by region



2024 sales revenue by market



37%

Life Sciences



34%




Performance Ingredients



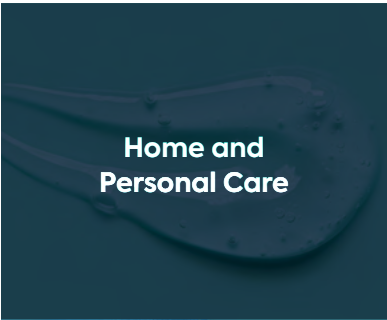


29%

Personal Care and Consumer




Life Sciences market sector overview

	Advancion Differentiators		End-use Applications
 <p>Biotechnology</p>	<ul style="list-style-type: none"> • Biological buffers (TRIS AMINO™, TRIS AMINO™ HCl, HEPES, etc.) • Amino acids, biochemicals, vitamins, nucleotides • Specialty insect cell culture media • Insect / mammalian cell lines, molecular tools and reagents 	<ul style="list-style-type: none"> • Only U.S. / EU manufacturer of the TRIS molecule • Leading expertise, products and services focused on baculovirus / host cell systems • High-performance cell culture media for improved productivity • Focused investments in capacity to underwrite market demand and ensure supply security • Ultra-high purity and cGMP ingredients • Full traceability and documentation • Fully integrated manufacturing • Single global quality system for buffers 	<ul style="list-style-type: none"> • Upstream bioprocessing • Downstream purification • Cell and gene therapy • Biosimilars • Vaccines
 <p>Pharmaceutical</p>	<ul style="list-style-type: none"> • Basic nitroalkanes / nitroalkane derivatives as synthesis building blocks and reaction solvents • Amino alcohol excipients used in final API stabilization, or to manage pH and solubility 	<ul style="list-style-type: none"> • Only commercial-scale producer of nitroethane and 1-NP globally • Only fully integrated manufacturer of nitromethane globally • 50+ years of safe and effective use in commercially available APIs 	<ul style="list-style-type: none"> • Small / large molecule APIs • X-ray diagnostic agents • Topical treatments
 <p>Agriculture</p>	<ul style="list-style-type: none"> • Building blocks and intermediates for active ingredient synthesis • Multifunctional additives and adjuvants 	<ul style="list-style-type: none"> • World's only fully integrated manufacturer of basic nitroalkane chemistries – nitromethane, nitroethane, 1-nitropropane and 2-nitropropane – as well as numerous nitroalkane derivatives • USA EPA inert registration for select ingredients • Cost-effective synthetic feedstocks 	<ul style="list-style-type: none"> • Novel agricultural actives • Soil fumigants • Crop safeners

Personal Care and Consumer market sector overview

	Advancion Differentiators		End-use Applications
 Home and Personal Care	<ul style="list-style-type: none">• High-purity, high-performance amino alcohols used as multifunctional neutralizers, alkalizers, emulsifiers, odor scavengers, and additives	<ul style="list-style-type: none">• Unique, enabling ingredients (e.g., clean beauty formulations and hypoallergenic, ammonia- and MEA-free label claims)• Multifunctional additives produced using partially renewable content• Natural botanical extracts produced from sustainably sourced plant materials• Ultra-high purity, low-toxicity and global compliance with cosmetics regulations• High-performance multifunctionality (e.g., in-can corrosion resistance, enhanced pigment dispersion, high-humidity curl retention, long-lasting hair color development)	<ul style="list-style-type: none">• Skincare• Suncare• Hair styling / care• Hair colorants• Color cosmetics• Hand sanitizers• Household and industrial cleaning
 Residential Paints and Coatings	<ul style="list-style-type: none">• Multifunctional additives, neutralizers, pigment co-dispersants• Formaldehyde and odor scavengers	<ul style="list-style-type: none">• Enables low- / no-VOC and green label formulations• Functionality helps improve indoor air quality• Benchmark multifunctional performance and pigment dispersion• Preferred EH&S profile and odor• Formulation and manufacturing optimization	<ul style="list-style-type: none">• Low- / no-VOC waterborne architectural paint• Green label paints• Activated carbon air filters and indoor air quality improvement
 Electronics Chemicals	<ul style="list-style-type: none">• Multifunctional additives, dispersants and intermediates• Specialty solvents and stripping and process aids	<ul style="list-style-type: none">• Ultra-high purity, low metals electronics grade• Unique molecular structures• Low toxicity, improved EH&S profile• High-performance dispersion of carbon / graphene• Tunable chemistries to meet end-user specs	<ul style="list-style-type: none">• Lithium-ion batteries• Flat panel displays• Semiconductors• Integrated / printed circuit boards

Performance Ingredients market sector overview

	Advancion Differentiators		End-use Applications
 <p>Metalworking Fluids</p>	<ul style="list-style-type: none"> • Multifunctional additives, neutralizers and emulsifiers for metal removal, cleaning, forming and protection fluids 	<ul style="list-style-type: none"> • Globally registered, low secondary amines • Extended fluid life and with exceptional corrosion resistance • Enables precision machine tolerances and multi-metal compatibility required for vehicle electrification / lightweighting • Low toxicity and preferred EH&S profile for improved product labelling and worker safety 	<ul style="list-style-type: none"> • Extended life semi-synthetic / synthetic metal removal fluids • Metal cleaning fluids • Wire drawing fluids • Multi-metal fluids
 <p>Industrial Paints and Coatings</p>	<ul style="list-style-type: none"> • Multifunctional additives, crosslinkers, water and formaldehyde scavengers, intermediates, specialty solvents and process aids 	<ul style="list-style-type: none"> • Benchmark multifunctional performance, corrosion resistance and pigment dispersion • Preferred EH&S profile and odor • Formulation and manufacturing optimization • Unique molecular structures for synthesis and reactive chemistry applications • Enables transition from solvent-borne to water-based formulations 	<ul style="list-style-type: none"> • Low- / no-VOC waterborne pigment slurries • Direct-to-metal coatings • Automotive and general industrial paints and coatings • Aerospace coatings • Industrial solvents
 <p>Other Specialty Applications</p>	<ul style="list-style-type: none"> • Specialty multifunctional additives, crosslinkers, intermediates, solvents and process aids 	<ul style="list-style-type: none"> • High-performance multifunctionality • Low secondary amines • Enhances end-formulation stability • Preferred EH&S profile and odor • Enables formulation and manufacturing process optimization • Unique molecular structures for synthesis 	<ul style="list-style-type: none"> • Synthetic rubber • Pulp and paper mineral slurries • Water treatment • Chemical manufacturing and synthesis • Upstream oil and gas

Where we operate

- Corporate Headquarters
- Manufacturing
- Customer Application Center
- R&D
- Sales Office
- Expression Systems Headquarters



Davis, CA

Sterlington, LA

Buffalo Grove, IL

São Paulo, Brazil

Ibbenbüren, Germany

Paris, France

Seoul, South Korea

Shanghai, China

Mumbai, India

Singapore

Jakarta, Indonesia

Tokyo, Japan

2024 facts and figures

- 12 locations in 10 countries
- 3 manufacturing sites
- 2 R&D centers
- 6 Customer Application Centers (CACs)

A transparent and trusted supply chain

Our fully integrated manufacturing operations and global supply chain are essential to delivering high-quality, high-performance ingredients safely and reliably. We source more than 100 raw materials from a diverse network of long-term suppliers, helping mitigate supply disruptions and limit exposure to price volatility.

To further strengthen supply continuity, we've invested in dual-source manufacturing capabilities across major product lines—ensuring consistent delivery for our customers.

We approach every supplier relationship with a strong commitment to responsibility, accountability, and integrity. The Advancion Supplier Code of Conduct outlines clear expectations around environmental stewardship, health and safety, labor practices, human rights, and ethical conduct. This Code applies to all suppliers across our global value chain.

2024 facts and figures

Our global supply chain



>500
suppliers



>4,000
customers



>25
authorized
distributors

Key spend categories

- Raw materials
- Packaging
- Transportation and logistics
- Capital equipment
- Maintenance services
- Process chemicals and catalysts
- Spare parts and equipment
- Energy and utilities
- Professional services
- Information technology
- Travel
- Engineering and environmental services

A letter from our CEO



At Advancion, we believe that progress and responsibility go hand-in-hand. We will continuously drive the company to new levels of operational and financial performance, while simultaneously building toward a more sustainable future. I'm proud of our accomplishments in 2024 and have complete confidence that we will meet and exceed our longer-term objectives.

This past year marked important milestones in our sustainability journey. We further reduced our environmental footprint and significantly expanded the scope of our greenhouse gas emissions tracking. We made measurable gains in energy efficiency, water stewardship and waste reduction through targeted process improvements and enhanced environmental controls. Equally important, we advanced the way we think about innovation—with sustainability as a core design principle.

In 2024, we made exciting progress with the launch of a new generation of products designed with improved performance and safety profiles.

Several of these novel multifunctional ingredients incorporate renewable raw material content, helping customers meet their own sustainability goals while maintaining high levels of quality and functionality. These advancements demonstrate our commitment to developing science-backed products that not only meet the technical needs of our customers but also align with a lower-carbon, more circular future.

Our journey of continuous improvement starts with our people. I am continually inspired by the passion, expertise, and values-driven mindset of our global team. This year, we focused on strengthening safety performance, supporting employee well-being, and cultivating a workplace culture grounded in respect, transparency, and continuous learning.

Looking ahead, we remain committed to advancing our sustainability strategy—guided by science, shaped by collaboration, and driven by innovation. We are actively laying the groundwork for achieving our long-term climate goals, evaluating product lifecycles, and building

greater transparency into how we measure progress. As we continue to scale and evolve, our focus will be on long-term value creation—for our customers, employees, communities, and the environment.

This report reflects our journey—where we are today and where we're going. It also reflects our values: integrity, curiosity, collaboration, and an unwavering view that sustainability will be part of everything we do.

Thank you for your partnership and support.

A handwritten signature in black ink, appearing to read 'David Neuberger'.

David Neuberger
President and Chief Executive Officer

Driven by science, designed for the future

At Advancion, science is more than a discipline—it is our DNA. As a performance-driven innovator of specialty ingredients, our identity is rooted in leveraging science as a force for positive transformation. Whether we are developing next-generation ingredients for beauty and personal care, sustainable solutions for industrial applications, or high-performance additives for energy and electronics, we continually push boundaries in pursuit of a better, more sustainable future.

The theme of this year's sustainability report—Driven by Science. Designed for the Future.—captures our vision and values. We believe that innovation anchored in sound science is essential to address the urgent challenges of global health, climate change, and resource scarcity. In the following pages, we highlight several examples of how Advancion is helping industries transition toward more sustainable, circular, and high-performance solutions through targeted investments in

green chemistry, biotechnology, and advanced materials. Every product we develop, produce and sell is born from our scientific rigor and unwavering focus on designing for the future.

But science at Advancion doesn't stop in the lab. We apply systems thinking to evaluate the full lifecycle impact of every innovation. From raw material sourcing to end-of-life considerations, we design solutions that help reduce carbon footprints, improve safety, and support global sustainability goals. Our research teams collaborate across disciplines—chemistry, biology, materials science, and environmental engineering—to ensure each product we create, produce and sell advances both performance and planet-friendly outcomes.

Our people are at the core of this work. From our Buffalo Grove, Illinois, headquarters and manufacturing facilities in California, Louisiana and Germany, to our six Customer Applications Centers around the world, our scientists,

engineers, and sustainability leaders share a common purpose: to advance science that makes a difference. We foster a culture of curiosity, integrity, and action—qualities that are essential to delivering on our mission.

As we look ahead, Advancion remains committed to bold innovation and responsible growth. We will continue to invest in technologies that meet rising customer expectations and global sustainability targets, because being driven by science is not just about discovery—it's about using what we know to create a future that's safer, smarter, and more sustainable for all.

**Driven by science.
Designed for the future.**

This is more than just a theme—it is the way we operate, innovate, and lead.

A Q&A WITH DR. KATHLEEN HAVELKA

Shaping the future of chemistry for a sustainable tomorrow

As Senior Vice President of Research, Development & Applications (RD&A) at Advancion, Dr. Kathleen Havelka leads the Company's global innovation and technology strategy. With a deep background in chemistry and decades of experience driving sustainable solutions, Dr. Havelka has played a pivotal role in shaping Advancion's innovation pipeline. From pioneering new bio-based ingredients to accelerating new chemistry and application breakthroughs, her leadership continues to push the boundaries of what is possible. In this Q&A, Dr. Havelka shares why she believes Advancion's innovation engine is stronger and more impactful than ever.



Q: How would you describe the role of chemistry in today's sustainability efforts?

A: Chemistry is fundamental to solving the sustainability challenges we face—from decarbonization and resource efficiency to circularity and clean energy. At Advancion, we view chemistry not just as a science, but as a critical enabler. Whether it is developing new materials that reduce energy usage, improving the efficiency of existing processes, or enabling safer alternatives to legacy chemicals, the future of sustainability is built on a foundation of smart, responsible chemistry.

Q: What are some of the most exciting advancements you are seeing right now?

A: There's incredible momentum in green chemistry, particularly in catalyst development and solvent-free processes. We are also seeing game-changing progress in electrochemical technologies, like flow batteries, and CO₂ capture. Another area with tremendous potential is bio-based chemistry—where renewable feedstocks can replace fossil-derived inputs without compromising performance. These innovations are driving us toward more sustainable supply chains and lower overall environmental impact.

Q: How is Advancion contributing to these advancements?

A: We are investing in both research and strategic partnerships that align with our sustainability goals. Internally, our labs are working on process intensification to reduce waste and energy usage across production. Externally, we are collaborating with universities, startups, and consortia to co-develop scalable solutions, especially in areas like alternative raw materials and emissions reduction. What makes us unique is how we pair scientific rigor with an urgent sense of environmental responsibility.

Q: What challenges still stand in the way of more sustainable chemistry?

A: One challenge is scaling—from lab to commercial use. Many promising ideas remain at the pilot stage due to cost or infrastructure barriers. Another is regulatory alignment. As global regulations evolve, we need clearer, harmonized standards that encourage innovation without compromising safety. Lastly, industry-wide collaboration is key. No single company can solve these problems alone—we need shared frameworks and open innovation.

Q: How does this all tie into Advancion's broader sustainability vision?

A: At Advancion, sustainability is not a side project—it is embedded into how we innovate, manufacture, and deliver value. We are aligning our chemistry with long-term climate and circularity goals, measuring impact at every stage. Our team's mission is to make sure that every advancement we pursue moves the needle—not just for our business, but for the planet.

Chemistry is often invisible, but its impact is everywhere—from the materials in your phone to the air you breathe. If we apply it thoughtfully, chemistry can be one of our greatest tools in building a more sustainable world. At Advancion, we are proud to be part of that solution.

Q: What excites you most about the future of chemistry?

A: The convergence of data science and chemistry is incredibly exciting. With artificial intelligence (AI) and predictive modeling, we can accelerate molecule design, reduce trial-and-error, and improve environmental outcomes faster. I am also inspired by the next generation of chemists—they are coming in with a mindset that sustainability is non-negotiable. That kind of thinking will drive profound change.





Sustainable science in action (2024)

In 2024, Advancion advanced its commitment to sustainable chemistry by launching two new multifunctional ingredient platforms, demonstrating a strategic focus on renewable raw materials, safety, and high performance across diverse industries.

In April, Advancion introduced a new 50% bio-based (ASTM D6866) amino alcohol tailored for beauty and personal care applications, **ELEVANCE™ ELITE Bio65**. This ingredient offers high-efficiency neutralization, emulsion stability, enhanced pigment dispersion, and superior humidity resilience in haircare products—all while being low-odor and non-yellowing. With a Natural Origin Index of 0.65 (ISO 16128), ELEVANCE ELITE Bio65 sets a new standard for multifunctional additives supporting formulators in creating eco-conscious cosmetics that meet consumer demand for natural, high-performance formulations.

In December, Advancion introduced a next-generation portfolio of multifunctional additives built on its innovative aminoamyl alcohol technology platform. Designed to meet rising global demand for safer, more sustainable, and high-performing ingredients, these proprietary ingredients deliver enhanced functionality across diverse applications—from personal care to coatings and metalworking fluids. The portfolio includes:

- **OPTIMINE™** for paints and coatings, offering low-VOC stabilization and pigment dispersion
- **ELEVANCE™ ULTRA** for personal care, improving hair fixative performance and pigment compatibility
- **CORRGUARD™ SELECT** for metalworking fluids, ensuring multi-metal protection, pH buffering, and foam control.

These new-to-the-world ingredients are readily biodegradable and backed by extensive environmental, health, and safety testing. Manufactured in Sterlington, Louisiana, with future expansion planned in Germany, the products are now available globally for evaluation and commercial use.

These, and several other 2024 product launches exemplify Advancion's integration of sustainability into core R&D. Together, the bio-based amino alcohol and the aminoamyl alcohol additive platform reinforce Advancion's mission to power customer innovation through high-performance, safe, and environmentally conscious solutions.

[Section continued >](#)

Sustainable science in action (2024)

JANUARY

Expression Systems, an Advancion company, introduced a new, scalable baculovirus expression vector system (BEVS) manufacturing platform designed to enhance productivity and streamline regulatory processes for progressing advanced therapies through clinical trials and into commercialization. This proprietary platform includes an Sf9 RV-Free rhabdovirus-free insect cell line codeveloped with ESF AdvanCD™ chemically defined insect cell culture medium. When coupled together, the new platform demonstrates exemplary cell growth and impressive expression yields – up to 5 times more – than other platforms.

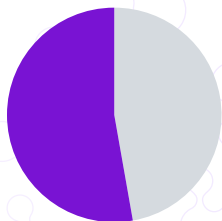
MAY

We launched the latest addition to our CORRGUARD™ family of high-performance additives for metalworking fluids, CORRGUARD™ SA-100, a multifunctional alkanolamide emulsifier manufactured using 72% renewable raw materials (ASTM D6866). CORRGUARD SA-100 provides outstanding emulsification in semisynthetic and soluble oil metalworking fluids and features low foaming, excellent hard water stability, lubricity, and outstanding corrosion and staining protection for both ferrous metals and aluminum alloys.

AUGUST










We further expanded our portfolio for personal care applications with the launch of HEPES ULTRA PC™ buffer, an in-house manufactured, high-purity formulation tool designed for premium skincare and cosmetic applications. This product enhances formulation stability and effectiveness, meeting the evolving needs of global beauty and personal care brands.

2024 facts and figures



53%

total revenues generated in 2024 by products that have a positive impact on health, reduce waste, or have a better overall environmental profile (compared to 54% in 2023).

Criteria	% total 2024 Revenue	% total 2023 Revenue	% total 2022 Revenue	Market segments
Positive impact on health	~37%	~40%	~39%	 Biotech  Personal Care  Pharma  Agriculture
Improves end product profile	~12%	~10%	~11%	 Personal Care  Residential Coatings  Electronics
Waste minimizing	~4%	~4%	~3%	 Metalworking  Industrial Coatings

THE SCIENCE BEHIND

Pigment dispersion

Pigment wetting is a fundamental step in the formulation of products ranging from paints and coatings and cosmetics to carbon nanotube slurries used in lithium-ion batteries. It is the process by which a liquid vehicle, such as water or an organic solvent, displaces air and adsorbed contaminants from the surface of a solid pigment particle. Efficient wetting is critical to achieving uniform pigment dispersion, consistent color, and optimal product performance. Central to this process is the use of specialized surfactants and dispersing agents—among them, Advancion amino alcohols have emerged as versatile and sustainable enablers.

Understanding pigment wetting

The surfaces of pigment particles are inherently hydrophobic and often coated with moisture and processing residues that inhibit their ability to interact with liquid binders or solvents. When a pigment is added to a formulation, poor wetting leads to agglomeration, increased viscosity, and incomplete dispersion—ultimately compromising color intensity, surface finish, and dry film performance.

Effective wetting agents reduce both surface tension for air displacement and the interfacial tension (liquid-solid interface) for de-agglomeration and stabilization. This allows the liquid medium to rapidly spread over the pigment surface, promoting better dispersion and stability. Amino alcohols, which have an amphiphilic structure (possessing both hydrophilic and lipophilic regions), function effectively in this role by adsorbing at the solid-liquid interface and enhancing the compatibility between pigment and binder.

The role of Advancion ingredients

Advancion's multifunctional amino alcohols are widely used as pigment wetting and co-dispersing agents. Their dual functionality—amine groups for electrostatic interaction and hydroxyl groups for hydrogen bonding—allows them to anchor to pigment surfaces while simultaneously interacting with surrounding media. This mechanism supports superior pigment deagglomeration and suspension stability.

Pigment wetting, especially when aided by amino alcohols, is a behind-the-scenes enabler of sustainability. Whether it's lowering VOC emissions in paints, simplifying cosmetic ingredient lists, or extending the life of a battery, improved pigment wetting leads to measurable environmental and economic benefits. As regulatory pressures increase and sustainability expectations rise, optimizing this seemingly small step in formulation will continue to unlock significant cross-industry value.

[Section continued >](#)

The science behind pigment dispersion

Sustainability impact

Paints and coatings: reducing VOCs and resource use

In architectural and industrial coatings, Advancion amino alcohols function as high-efficiency pigment wetting agents facilitating the use of waterborne systems that reduce or eliminate volatile organic compounds (VOCs). VOCs are significant contributors to indoor air pollution and smog formation. Traditional solvent-borne paints require high VOC content to ensure pigment dispersion and flow; however, with effective wetting agents, formulators can achieve high-performance coatings with low- or zero-VOC levels.

Example: A waterborne acrylic paint using Advancion ingredients can achieve equivalent hiding power while potentially reducing the loading levels of titanium dioxide, reducing reliance on this energy-intensive pigment and improving life-cycle carbon footprint.

Additional benefits: Better color development and stability reduce the need for recoating, extending product life and reducing overall consumption.

Color cosmetics: cleaner labels and lower environmental impact

In personal care and cosmetic formulations, pigment wetting impacts product texture, stability, and visual quality. Advancion ingredients help disperse colorants and effect pigments more efficiently, reducing the need for additional stabilizers, preservatives, and synthetic emulsifiers.

Example: In color cosmetics, such as mascaras or tinted moisturizers, amino alcohols provide superior pigment dispersion enabling “clean beauty” claims and reducing reliance on petrochemical-derived additives.

Additional benefits: Fewer ingredients translate into a simpler supply chain and lower environmental load during manufacturing and end-of-life product degradation. In addition, improved spreadability and uniform color reduce product waste and improve consumer satisfaction.

Lithium-ion batteries: enhancing energy efficiency and longevity

Pigment wetting principles also apply to slurry formulations in lithium-ion batteries, where dispersants are used to distribute conductive carbon and active material particles. Advancion’s amino alcohol-based dispersants ensure homogenous coatings on electrodes, which directly influence battery performance and durability.

Example: A lithium iron phosphate (LFP) cathode formulation using amino alcohol dispersants achieves improved particle uniformity, leading to enhanced charge / discharge rates and longer cycle life—key sustainability metrics in EVs and grid storage.

Additional benefits: Better dispersion reduces the need for excess conductive additives, lowering material usage. More stable electrodes mean fewer battery replacements over time, reducing e-waste and raw material extraction, especially for critical minerals like lithium and cobalt.



THE SCIENCE BEHIND

Carbon capture

As the global community intensifies efforts to mitigate climate change, carbon dioxide (CO₂) capture has emerged as a critical strategy in reducing greenhouse gas emissions. One promising avenue of carbon capture lies in the use of Advancion ingredients—which are part of a class of organic compounds that combine both amine and alcohol functional groups. Their unique chemical structure and reactivity make them highly effective agents for absorbing CO₂ from industrial flue gases and ambient air, supporting long-term climate and sustainability goals.

The role of Advancion ingredients in CO₂ capture

CO₂ capture technologies are generally categorized into pre-combustion, post-combustion, and direct air capture (DAC) systems. Post-combustion CO₂ capture, used in fossil fuel power plants and industrial facilities, relies heavily on liquid solvents to selectively remove CO₂ from exhaust streams. Amines—particularly monoethanolamine (MEA)—have traditionally been used, but newer amino alcohols are gaining attention due to improved performance and lower environmental impact.

Advancion amino alcohols offer a combination of high CO₂ loading capacity, lower regeneration energy, and reduced degradation rates. These amino alcohols absorb CO₂ through a reversible chemical reaction where the amino group reacts with CO₂ to form a carbamate or bicarbonate intermediate, depending on the chemical structure of the amino alcohol. The presence of one or more hydroxyl groups increases the water solubility and thermal stability of the amino alcohols, improving absorption efficiency and solvent lifecycle.

Performance advantages and energy efficiency

Compared to conventional amines, amino alcohols often require less energy to regenerate—meaning less steam and lower operating costs. For instance, certain Advancion amino alcohols form relatively stable bicarbonates instead of carbamates, facilitating easier CO₂ release during regeneration. This can reduce the energy penalty associated with carbon capture, a major barrier to wide-scale adoption of carbon capture and storage (CCS) technologies.

Additionally, amino alcohols tend to produce fewer degradation byproducts, translating into longer solvent life and reduced solvent replacement rates. These features lower both environmental impact and total cost of ownership, making CO₂ capture more economically viable across industries such as cement, steel, petrochemicals, and power generation.

[Section continued >](#)

The science behind carbon capture

Sustainability impact

When incorporated into CO₂ capture systems, Advancion chemistries support broader sustainability objectives in multiple ways:

Reduced greenhouse gas emissions: Efficient CO₂ capture directly contributes to lowering net emissions from high-emitting sectors.

Lower environmental footprint: Enhanced solvent stability means fewer emissions of volatile degradation products and less hazardous waste.

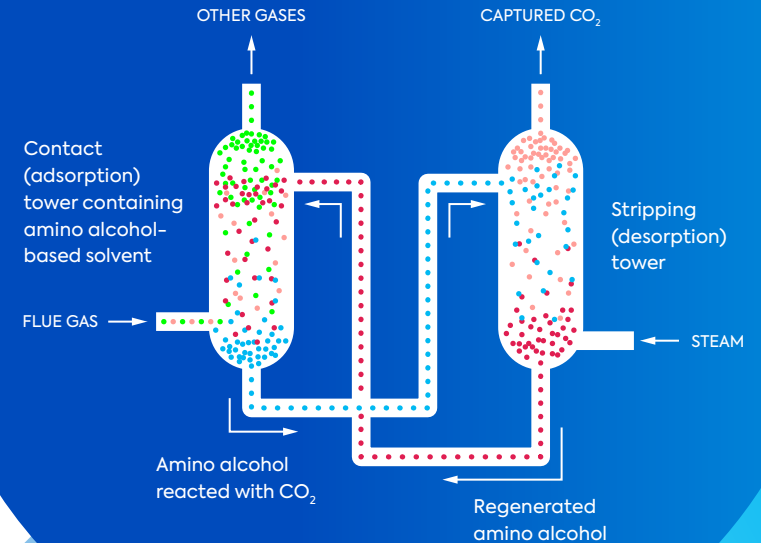
Energy and resource efficiency: Reduced regeneration energy lowers fossil fuel use and supports decarbonization of industrial energy systems.

Enabling carbon utilization: Captured CO₂ can be reused in synthetic fuels, building materials, or enhanced oil recovery, creating circular economy opportunities.

Looking ahead

As the demand for climate solutions grows, innovations in solvent chemistry—especially using amino alcohols—will be central to advancing carbon capture technologies. Their unique ability to combine effective CO₂ absorption with sustainability advantages makes them key enablers in the transition to a low-carbon economy. Future research focused on tuning molecular properties, hybrid solvent systems, and process integration will further expand their role in climate-aligned industrial applications.

Amino alcohols in CO₂ capture



THE SCIENCE BEHIND

A scalable platform for biomanufacturing

The baculovirus expression vector system (BEVS) has emerged as a powerful tool in biotechnology for producing high-quality proteins in a sustainable and scalable manner. Utilizing insect cells and a common insect virus, BEVS offers a biologically safe, efficient, and environmentally responsible approach to protein expression that supports the growing demand for biopharmaceuticals, vaccines, and recombinant proteins.

At the core of BEVS is the baculovirus, a DNA virus that naturally infects lepidopteran insect cells, most usefully from the *Spodoptera frugiperda* (Sf9 or Sf21) and *Trichoplusia ni* (Tni) cell lines. Scientists exploit this virus by engineering it to carry genes of interest—often human or viral—into insect cells. Once inside, the viral machinery hijacks the host cell's transcription and translation systems, enabling the production of complex recombinant proteins with the post-translational modifications needed for proper function. Because insect cells are eukaryotic, they can produce proteins that are structurally and functionally similar to those made in mammalian systems, but with fewer ethical, biosafety, and economic concerns.

BEVS is highly scalable and flexible, which minimizes waste and improves production efficiency. The system is particularly well-suited for rapid-response manufacturing, such as vaccine production during pandemics. For example, BEVS was instrumental in producing protein-based vaccines during the 2009 H1N1 influenza outbreak

and the more recent COVID-19 pandemic. The short development timelines and high yields provide efficiencies that lower manufacturing requirements and contribute to more sustainable operations.

Another key advantage is BEVS's biosafety. Because baculoviruses do not infect humans or animals, there is minimal risk of cross-species contamination or zoonotic transmission. This eliminates the need for high-containment facilities and enables safe handling and disposal practices, aligning with sustainable biosafety management principles.

BEVS represents not just a powerful biotechnological platform, but also a model for sustainable innovation in life sciences. As global industries shift toward greener and more responsible production systems, BEVS offers numerous environmental and operational advantages over traditional expression systems, making it a strategic asset for sustainable biomanufacturing.

[Section continued >](#)

The science behind a scalable platform for biomanufacturing

Sustainability impact

Reduced resource and energy consumption

Unlike mammalian cell culture systems, which require tightly controlled temperature (typically 37°C) and carbon dioxide modulation, BEVS relies on insect cells that thrive at lower temperatures (around 27°C) and do not require CO₂ modulation. This significantly reduces the energy demands of heating, ventilation, and air conditioning (HVAC) systems in bioproduction facilities.

Additionally, insect cell lines used in BEVS can be cultivated in serum-free, chemically defined media. This eliminates the environmental and ethical concerns associated with fetal bovine serum (FBS), a common supplement in mammalian cell culture, which is resource-intensive and animal-derived.



Lower environmental footprint through single-use technologies

BEVS is highly compatible with single-use bioreactor systems, which reduce the need for extensive cleaning and sterilization processes that consume large volumes of water, energy, and cleaning agents. The reduction in clean-in-place (CIP) and steam-in-place (SIP) cycles lowers not only resource use but also process downtime, improving overall facility efficiency.

Single-use systems also reduce cross-contamination risk and enhance biosafety, which translates to less waste from failed batches and minimized need for overproduction—a key tenet of sustainable manufacturing.

Efficient, high-yield expression minimizes waste

BEVS allows for high-yield protein expression in relatively short time frames, enabling production of complex proteins, including virus-like particles (VLPs), enzymes, and therapeutic antigens. The efficiency and consistency of this system minimizes the number of runs needed to meet demand, which in turn reduces raw material usage, waste generation, and emissions from transportation and logistics.

Shorter development cycles support agile, rapid production

BEVS enables rapid development and scale-up of biologics without the long lead times required for generating stable mammalian cell lines. This agility reduces the risk of producing unnecessary quantities of outdated or obsolete products. For instance, BEVS was used in the production of the Novavax COVID-19 vaccine, which demonstrated how quickly this system can respond to emerging health crises with minimal waste and streamlined processes.



THE SCIENCE BEHIND

Odor control

Advancion's high-purity ingredients play a pivotal role in odor control across various industries. Their unique chemical structure allows them to interact effectively with odorous molecules, making them indispensable in applications ranging from personal care and cleaning products to industrial and environmental odor mitigation. Beyond performance, Advancion ingredients contribute meaningfully to sustainability efforts by reducing reliance on traditional masking agents and enabling low-impact formulations.

Understanding the odor control functionality

At the core of the odor control functionality of Advancion's multifunctional amino alcohol ingredients is their dual affinity for compounds that can interact with water (hydrophilic) and those that cannot (hydrophobic). The amino group readily reacts with acidic odor molecules through neutralization or complexation. Simultaneously, the hydroxyl group improves solubility and dispersion in aqueous systems, allowing even distribution of the active compound throughout the medium. This synergy results in rapid and effective odor neutralization rather than merely masking offensive smells.

For example, in cleaning products and air fresheners, amino alcohols bind with odorous compounds that cause unpleasant odors and capture or neutralize them into less volatile or non-odorous salts or complexes. This neutralization mechanism effectively eliminates the perception of the bad smell.

The role of Advancion ingredients

Traditional air fresheners, deodorants and pet sprays may utilize odor-masking agents, such as solvents or synthetic fragrances that may be irritants and introduce volatile organic compounds (VOCs) into the environment. By contrast, Advancion ingredients provide functional odor neutralization while minimizing environmental impact. This is especially valuable in personal care and home care formulations where regulatory pressures and consumer demand are driving cleaner labels.

Additionally, Advancion amino alcohols are inherently multifunctional—they can serve as odor scavengers, pH adjusters and corrosion inhibitors in a single formulation—helping to reduce the number of ingredients needed in a product. Fewer ingredients means a more streamlined supply chain, reduced packaging and lower carbon intensity throughout the product lifecycle.

[Section continued >](#)

The science behind odor control

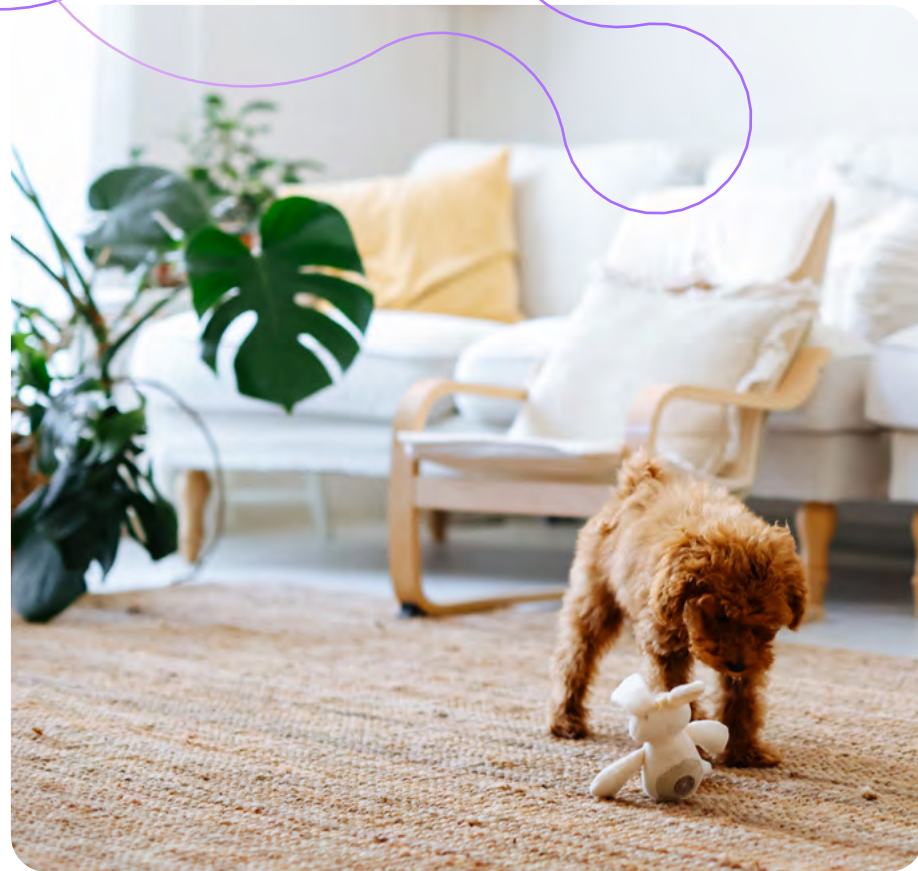
Sustainability impact

Advancion amino alcohols are a prime example of how smart chemistry can advance sustainability. By replacing traditional masking agents with reactive odor-neutralizing mechanisms, reducing formulation complexity, and enabling greener production and usage practices, these compounds offer a compelling path toward more environmentally responsible and health-conscious odor control solutions.

As industries and consumers continue to prioritize sustainability, the use of Advancion amino alcohols as odor scavengers will only grow in relevance and impact.

- **Indoor odor elimination** – By neutralizing rather than masking malodors, Advancion amino alcohols reduce exposure to harmful or irritating compounds, particularly in enclosed environments such as homes, offices, or factories. Household and industrial products that utilize amino alcohols can meet or exceed indoor air quality certifications such as GREENGUARD® or Ecolabel, enhancing occupational safety and supporting public health initiatives.

- **Gentle and effective personal care products** – Traditional odor control strategies used in deodorants and body washes often rely on synthetic fragrances and other ingredients to mask offensive odors. In contrast, Advancion amino alcohols have proven efficacy at low concentrations—showing a near-total reduction of key malodor compounds like isovaleric and butyric acids at just 2–5% use rates in formulation—without the need for high levels of fragrance or other ingredients that can be irritating to the skin.
- **Pet odor control** – In between baths, it can be difficult to keep your pet (and your furnishings) smelling their best. Advancion amino alcohols are mild ingredients and can be used in formulations without the use of alcohol to create gentle yet effective pet odor control sprays that are safe for animals, humans and the planet. Advancion ingredients don't mask nasty pet odors – they eliminate them on a molecular level by effectively neutralizing acidic and aldehyde-based odor components.



THE SCIENCE BEHIND

Multi-metal compatibility

Metalworking fluids play a vital role in machining operations by providing lubrication, cooling, and corrosion protection. As modern manufacturing evolves, there is increasing demand for fluids that perform effectively across a variety of metals—such as aluminum, steel, copper, and their alloys—within a single formulation. This concept, known as multi-metal compatibility, is critical for operational efficiency and sustainability in metalworking operations. A key enabler of this functionality is the use of Advancion's amino alcohol additives, which contribute unique chemical properties that enhance the performance and stability of fluid formulations across diverse metal types.

The role of Advancion ingredients in metalworking fluids

Advancion's additives are amino alcohols that contain both amino and hydroxyl functional groups. This dual functionality enables them to act as alkaline additives, corrosion inhibitors, emulsifiers, and pH buffers in metalworking fluid formulations. Their amphiphilic nature helps stabilize emulsions and interact with a broad range of metal surfaces.

In the context of multi-metal compatibility, amino alcohols offer a chemically adaptive interface that mediates interactions between the metal surfaces and other fluid components such as surfactants, biocides, and anti-wear agents. This is especially important because different metals exhibit different surface chemistries—aluminum forms passive oxide layers, copper alloys are prone to staining, and ferrous metals are susceptible to rust. Amino alcohols contribute to balancing the pH and passivating the surface to prevent these degradation mechanisms without reacting negatively with any specific metal.

Corrosion inhibition and compatibility

One of the most important properties of amino alcohols in multi-metal systems is their ability to form protective films on metal surfaces. For ferrous metals, amino alcohols can inhibit oxidation by adsorbing onto the surface and maintaining an alkaline microenvironment that slows corrosion reactions. For copper, brass and aluminum alloys, some amino alcohols form stable complexes that reduce surface staining and discoloration.

Advancion additives are compatible with a wide range of other formulation ingredients, including synthetic and semi-synthetic base fluids, extreme pressure (EP) additives, emulsifiers, and biocides and fungicides. Their innate chemical stability ensures that they do not interfere with other key performance enhancers in the formulation. This synergy enables formulators to design universal metalworking fluids that reduce the need for metal-specific products, simplifying inventory and improving sustainability.

Section continued >

The science behind multi-metal compatibility

Sustainability impact

Multi-metal compatible fluids reduce fluid waste, minimize changeover downtime, and allow manufacturers to consolidate inventories. The use of Advancion multifunctional additives supports this efficiency by extending fluid life, reducing corrosion-related part rejects, and lowering the environmental impact of fluid disposal. Additionally, with low volatility and low-secondary amine content, and an excellent biodegradability profile, Advancion additives align with regulatory trends and sustainable manufacturing goals.

Extended fluid life and performance stability

Advancion's amino alcohol additives offer excellent corrosion protection, pH buffering, and metal ion stabilization—three critical factors that determine the longevity and stability of metalworking fluids. Their ability to passivate metal surfaces and neutralize dissolved ions minimizes microbial growth, oxidation reactions, and emulsion instability. This means fluids can remain in service for longer periods with fewer additives and biocide boosts, significantly lowering the environmental footprint over time.

Reduced resource consumption and waste

When a metalworking shop needs separate fluids for each metal type, this leads to increased consumption, partial usage, and frequent disposal of fluids due to incompatibility issues. With Advancion ingredients enabling one-fluid-for-all-metals solutions, shops can standardize on fewer formulations, which reduces partial fluid discard during metal changeovers, decreases the volume of fluid required on-site, and minimizes waste generation from fluid dumps and cleaning procedures. This fluid economy directly reduces the demand for raw materials and the environmental burden associated with fluid disposal and treatment.

Reduction in metal scrap and defects

Corrosion or staining caused by poorly matched fluids can result in rejected parts, increased scrap, or rework. Advancion additives reduce these risks by providing broad-spectrum protection for multiple metals, even in mixed-metal machining environments. This leads to less material waste, lower energy consumption from avoided reprocessing and higher overall production yields. By preserving part quality across different metal types, Advancion ingredients are indirectly improving the material efficiency of manufacturing operations.





Sustainability strategy and governance

Sustainability is core to our global business strategy, guiding purposeful and measurable actions that support Advancion's long-term success. It helps us reduce risk, strengthen our brand, and fuel innovation and competitiveness in a rapidly changing world.












We are committed to continually improving sustainability performance across all areas of our business and helping our customers meet their own goals through the products and services we offer. This commitment is brought to life through the Advancion Sustainability Blueprint and by integrating sustainability principles into every level of our operations.

Sustainability blueprint

Advancion's Sustainability Blueprint, first launched in 2021, serves as a strategic framework to embed sustainability across all aspects of our business. It is built upon four core pillars—each thoughtfully aligned with key United Nations Sustainable Development Goals (UN SDGs)—that shape our long-term commitments and daily decision-making. These pillars provide a structured approach to advancing environmental protection, social responsibility, ethical governance, and sustainable innovation.

Within each pillar, we have established clear objectives and measurable targets that influence how we design our products, manage our operations, and collaborate with suppliers across our global value chain. The Blueprint not only ensures accountability and continuous improvement but also drives meaningful impact by integrating sustainability into the heart of our corporate strategy. Our progress against these targets is transparently reported every year through our publicly available Sustainability Report, providing stakeholders with a clear view of our achievements, challenges, and forward-looking commitments.



		Environmental stewardship	Sustainable innovation	Culture of equity, diversity and inclusion	Socially responsible community partner
Sustainability Pillar	UN SDG	  	  	  	 
	Objective	To improve our operations and environmental footprint through greenhouse gas (GHG), waste and water management reductions while maintaining zero injuries and process safety incidents.	To advance innovative solutions, grounded in science, that bring value to our customers and improve the world in which we live.	To build a culture where every employee feels accepted, valued and able to contribute to their fullest potential.	To drive positive change through our local community engagement and support.
	Goals	<p>We support the understanding and prioritization of Advancion's contributions to addressing the world's challenges in the areas of:</p> <ul style="list-style-type: none"> • Global climate change • Waste reduction • Water conservation • "Safer" chemistries / products • Safe and healthy work environments 	<p>We support safe and sustainable innovation with the following actions:</p> <ul style="list-style-type: none"> • Engaging with our stakeholders to encourage innovative development of our products and services to continually advance sustainable options for our customers and the communities where we operate. • Informing our customers with respect to the functional, safety and environmental performance of our products. 	<p>We support a culture of diversity, equity, and inclusion with the following actions:</p> <ul style="list-style-type: none"> • Equitable and fair treatment of our employees and supply chain partners. • Global Diversity and Inclusion team that can promote understanding of regional / cultural differences. • Train all global leaders in foundational diversity and inclusion topics. 	<p>We support engagement with our stakeholders on a local, national, and international level, through formal and informal channels to understand their interests and maintain mutually beneficial relationships with them:</p> <ul style="list-style-type: none"> • Routine engagement / consultation with local community stakeholders close to our operations. • Allow employees time away from work to volunteer on community projects. • Invest in our communities through charitable, nonprofit contributions.

Environmental preservation and protection

2030 environmental targets

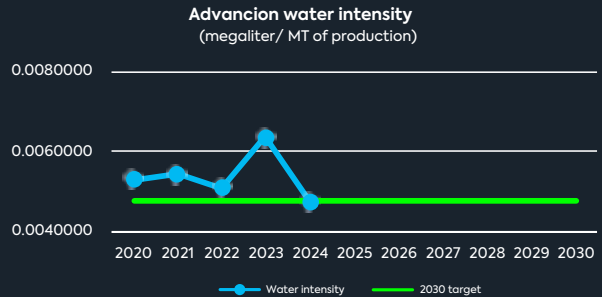
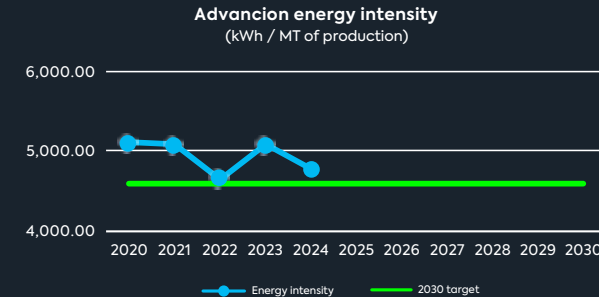
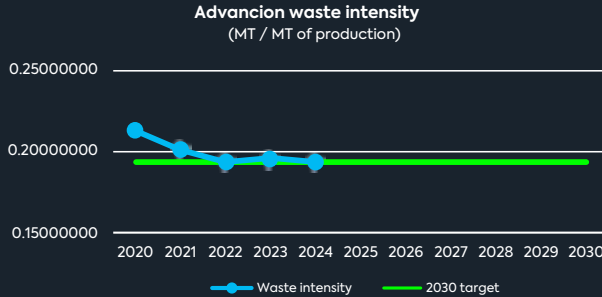
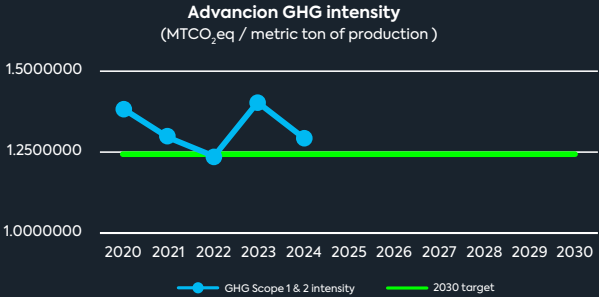
In 2022, we advanced our sustainability strategy by establishing a set of ambitious 2030 goals aimed at reducing the environmental impact of our operations. These targets, benchmarked to a 2020 baseline, focus on reducing water usage, waste generation, energy consumption, and greenhouse gas (GHG) emissions intensity at our primary manufacturing facilities in the United States and Germany.

By setting these objectives, we seek to significantly reduce our environmental footprint, enhance the efficiency of our operations, and contribute to our customers' own sustainability goals through more responsible products and practices.

2030 targets – emissions, energy, waste and water	Initial KPI target	2020 baseline	Example pathways to reductions
GHG intensity (Scope 1-2)	10% reduction	1.25 (MTCO ₂ e/MT)	<ul style="list-style-type: none"> Improved product yields and operational efficiencies Investigate purchasing carbon offsets Expand internal methanol and isopropyl alcohol recycling capability
Energy intensity	10% reduction Utilize 25% renewable energy	5,100 (kWh/MT of production) 1.3 % (% of renewable energy)	<ul style="list-style-type: none"> Installation of solar energy panels in Sterlington and Ibbsbüren Increase purchase of renewable energy
Waste intensity	10% reduction	0.207 (MT/MT of production)	<ul style="list-style-type: none"> Increase recyclable waste Reduce waste through process optimization and material recovery Expand site waste minimization plans – increase beneficial reuse for excess products Install selective catalytic reduction (SCR) system on boilers
Water intensity	10% reduction	0.006 (megaliter/MT)	<ul style="list-style-type: none"> Reduce once-through cooling water Recycle condensate Investigate reuse of effluent water Minimize flowing water for freeze protection

2024 facts and figures

Measuring progress toward our Target 2030 Goals – emissions, energy, waste and water
(versus 2020 baseline)



Governance

Sustainability at Advancion is led by a cross-functional Global Sustainability Team responsible for executing our Sustainability Blueprint, with oversight from the Senior Leadership Team and Board of Directors. The Blueprint is reviewed and updated annually, with progress supported by third-party assessments.

In 2024, sustainability remained a key priority at the Board level, with regular engagement on environmental, health and safety, diversity, and climate-related topics. Our Board and Senior Leadership Team work together to ensure accountability and sustained progress.

Every function across the company contributes to advancing sustainability by managing the processes that bring the Blueprint to life. External advisors and stakeholders provide valuable insights, helping align our efforts with regulatory expectations, industry standards, and stakeholder needs—enhancing transparency and strategic focus.

Board of Directors

- Exercises oversight of the Company’s strategic plans, programs and initiatives with the view of short- and long-term development of Advancion for the benefit of all stakeholders
- Reviews the effectiveness of and approves material sustainability investments and initiatives

Senior Leadership Team

- Sets Company strategy, including climate and other sustainability targets
- Reports on material sustainability issues to the Board of Directors on a regular and ad-hoc basis
- Oversees activities related to the implementation of the Company’s sustainability strategy and progress

Global Sustainability Team

- Strategic development, planning, and oversight of sustainability issues / initiatives across the Company
- Responsible for driving companywide engagement with sustainability programs / targets and provides guidance and support to sites, regions and markets to develop action plans to achieve goals
- Collects and monitors data on the Company’s sustainability performance and prepares related public disclosures

Company Functional Areas Responsible for Sustainability Focus

Communications and Investor Relations	Strategic Procurement
Regulatory, Product Stewardship and Quality	Human Resources
Environmental, Health and Safety	Finance, Tax and Accounting
Research, Development and Applications	Global Supply Chain Planning and Logistics
Manufacturing and Operations	Marketing, Sales and Customer Service

External

Sustainability Advisors

Provide independent assessments of our sustainability initiatives and progress

Stakeholders

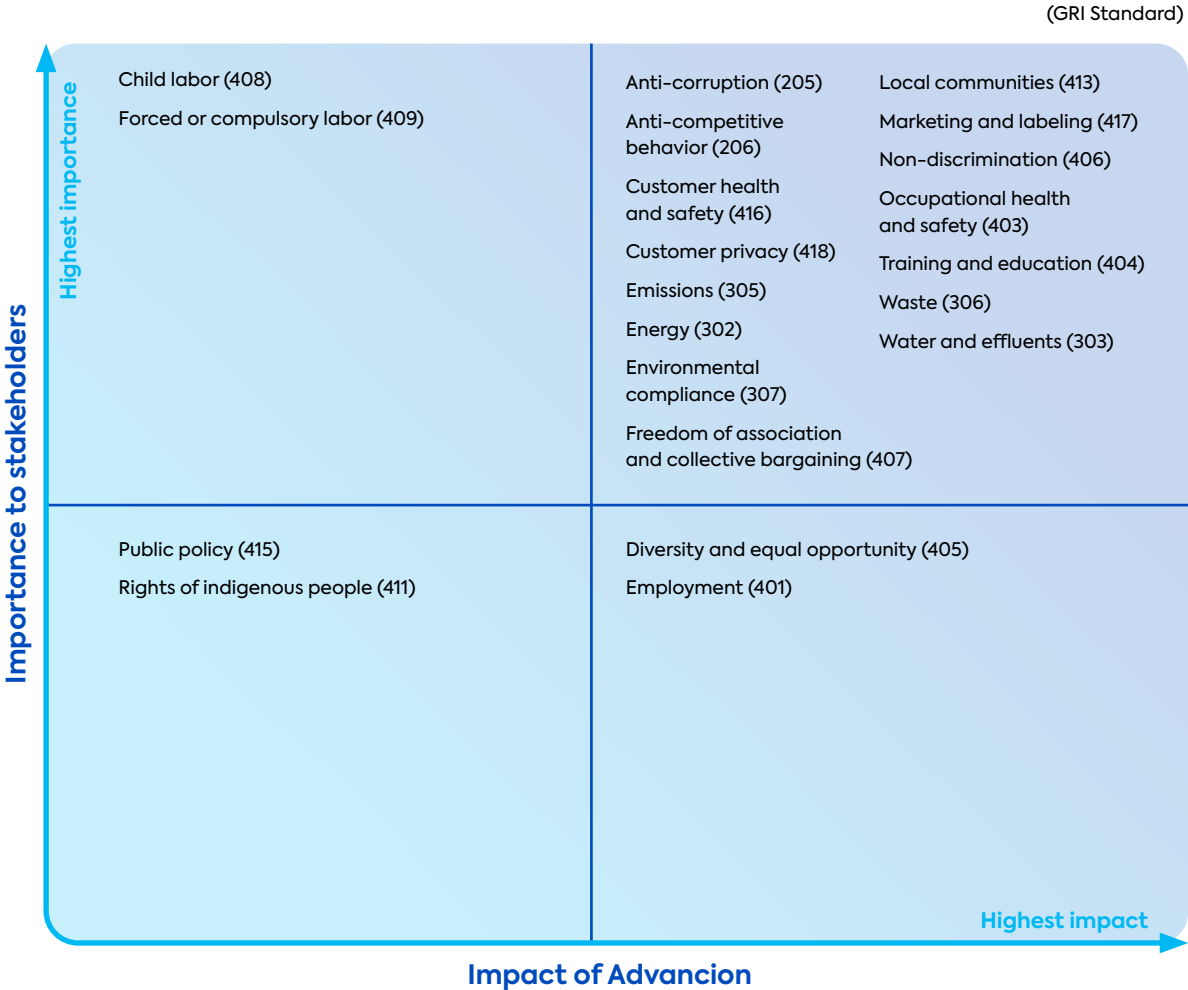
Provide insights into and feedback on the benefits and potential impact of our operations, products, and services around the world

Materiality assessment

We completed a comprehensive materiality analysis in conjunction with the development of our annual Sustainability Report. This, together with the reporting guidelines established by the GRI “In-Accordance” option, as well as other external resources, such as the Sustainability Accounting Standards Board’s (SASB) materiality matrix for the chemical industry, provide the framework for identifying the sustainability-related topics that are material to Advancion, and the related disclosures included in this report.

Of those topics that were relevant to Advancion, their relative importance was evaluated against two criteria: importance to stakeholders and importance to Advancion in terms of the significance of the economic, environmental, and social impacts. We also took a subjective view of Advancion’s ability to positively affect each topic.

In addition, we also report out on several topics included in the GRI standards that were deemed not material or not relevant to Advancion, but where data was readily available. The management approach to the material topics identified in this report is described, where appropriate.



Stakeholder engagement

We regularly engage with a broad range of stakeholders globally to inform our sustainability strategy and identify material issues that impact our business and the communities we serve. Each group plays a critical role in shaping our approach, and we tailor our engagement methods accordingly.

Customers

We collaborate closely with customers through product stewardship activities, technical service support, customer satisfaction surveys, and joint innovation projects. Their feedback informs our product design, safety practices, and sustainability performance.



Suppliers

We partner with suppliers through responsible sourcing programs, audits, assessments, and regular performance reviews. This engagement promotes alignment on safety, quality, human rights, and environmental standards across the value chain.



Employees and contractors

We foster open communication with our workforce through training programs, performance reviews, safety meetings, and employee engagement surveys. These channels help us address workplace safety, culture, diversity, and professional development.



Local communities, NGOs, and trade associations

We participate in community outreach, environmental programs, and industry association initiatives. Collaboration with NGOs and trade groups helps us stay informed of emerging issues and enhance our social and environmental impact locally and globally.



Material issues



Owners and investors

We provide transparent updates to ownership groups and investors through regular Board meetings, quarterly and annual reports, ESG disclosures, and direct communications. Owner / investor expectations influence our environmental, social, and governance (ESG) priorities and drive long-term value creation.

Government and regulatory agencies

Our compliance and advocacy teams engage with regulatory bodies through industry consultations, permit reviews, audits, and policy discussions. This ensures we meet or exceed legal requirements and contribute to responsible chemical management.

Locally invested, globally connected

At the heart of our sustainability efforts is a strong commitment to the communities where we operate—especially in Sterlington, Louisiana and Ibbenbüren, Germany, where our manufacturing sites play a central role in the local economy and social fabric. We view these communities not just as neighbors, but as essential partners in our long-term success.

We strive to create lasting positive impact by serving as a reliable employer and an active corporate citizen. Our operations generate meaningful employment opportunities and include internship, apprenticeship, and workforce development programs designed to support both current employees and the next generation of professionals. In collaboration with local emergency services, we also provide hands-on training to strengthen community preparedness and response capabilities.

Beyond our facilities, we encourage a culture of volunteerism and global citizenship among our employees. Through partnerships with nonprofit organizations, we help fund medical research, support health and wellness initiatives, and respond to critical local needs. Our commitment to education is equally strong, with investments in STEM-focused programs aimed at inspiring young learners and nurturing tomorrow's scientific innovators.

By aligning community engagement with our broader sustainability objectives, we aim to strengthen the resilience, health, and vitality of the regions in which we live and work.

Supporting food security through employee giving

As part of our commitment to community well-being and social responsibility, employees at our Buffalo Grove headquarters raised more than \$13,000 during a year-end holiday giving campaign in support of the Northern Illinois Food Bank. Thanks to the food bank's ability to leverage every dollar through bulk purchasing and partnerships, this contribution is equivalent to more than \$106,000 in food resources—enough to provide an entire year of meals for nine families of four.

The Northern Illinois Food Bank plays a critical role in addressing food insecurity and distributes nutritious meals to more than 570,000 individuals each month. Their mission centers on increasing access to food with dignity, equity, and efficiency, while building partnerships to create lasting solutions to hunger. This initiative reflects our belief that sustainability extends beyond environmental impact—it includes supporting the resilience and health of the communities where we live and work.

The Buffalo Grove team's generosity exemplifies our corporate values in action, demonstrating how employee-led efforts can drive meaningful, measurable impact.

Section continued >

2024 facts and figures

Membership associations

We maintain memberships and affiliations with trade associations and non-profit organizations around the world to support global sustainability initiatives and engage regularly with outside stakeholder groups. We actively support and participate in a diverse range of programs and initiatives with a local, national, and global focus on industry, consumer trends and sustainability. Our memberships include, but are not limited to:

- Advancement and Application of Alternatives Assessment Interest Group (SETAC A4 IG)
- American Chemistry Council (ACC)
- American Coatings Association (ACA)
- Biocom California
- California Life Sciences
- Change Chemistry
- Drug, Chemical and Associated Technologies Association (DCAT)
- Health and Environmental Sciences Institute (HESI)
- Independent Lubricant Manufacturers Association (ILMA)
- Michigan State University Research on Ingredient Safety (CRIS)
- New York Society of Cosmetic Chemists (NYSCC)
- Society of Tribologist and Lubricant Engineers (STLE)

A variety of stakeholder groups around the world maintain a relevant interest in our long-term sustainability, including, but not limited to:

- 405 full-time employees
- 62 contractors
- 4,000+ customers
- 500+ suppliers
- Numerous local communities in which we operate
- Members of chemical industry trade unions around the world
- Our investors and the broader investment community
- Relevant government and regulatory agencies





Empowering people. Driving performance.

Our people are the cornerstone of a high-performance culture built on unwavering commitments to safety, sustainability, continuous improvement, and operational excellence. We foster a growth mindset that inspires innovation and encourages every employee to contribute ideas that advance our shared goals.

At the core of our culture is a focus on respect, collaboration, and accountability. We strive to create an environment where every individual feels empowered to perform at their best within a safe and supportive workplace.

Our recruitment, development, and promotion practices are designed to ensure fairness and transparency, aligned with business needs and individual capabilities. We maintain strict policies to prevent discrimination and uphold the well-being of all employees.

Through these efforts, we strengthen a resilient workforce that supports our sustainability ambitions and drives lasting value for our company, our customers and communities.

A strong foundation for wellness

Our comprehensive employee benefits and development programs go beyond standard compensation to attract, retain, and inspire a skilled and dedicated workforce. Offering competitive benefits is key to creating a supportive workplace where employees feel valued and secure, fostering greater job satisfaction and commitment. By investing in these programs, we address the varied needs of our team members while reinforcing our standing as an employer of choice—ultimately supporting the long-term success and growth of our organization

Employee health and wellness

We provide a robust benefits package to all full-time employees based in the U.S., along with comparable, competitive benefits for our international workforce, tailored to meet local employment regulations. These offerings encompass, but are not limited to:

- Medical
- Dental
- Vision
- Health Savings Account
- Flexible Spending Account
- Life Insurance
- Supplemental and Dependent Life Insurance
- Flexible Work Schedules
- Paid Time Off
- Employee Assistance Program
- Savings and Investment
- Retirement Contribution Plan
- Accident Insurance
- Business Travel Insurance and Assistance
- Parental Leave
- Short- and Long-Term Disability Insurance
- Remote Work Options

Providing time for what matters most

We recognize that welcoming a new child is a significant life event, and our parental leave policy is designed to provide meaningful support during this important time. Since 2021, our global policy has ensured that all eligible full-time employees—regardless of gender or location—have access to paternity and adoptive leave.

Parental leave plays a vital role in promoting family well-being and supporting the long-term success of our workforce. By offering time away from work to care for and connect with a new child, we help reduce stress, encourage healthy family dynamics, and foster a more balanced integration of work and life. These benefits contribute to higher employee satisfaction, stronger retention, and a workplace culture rooted in care, flexibility, and respect.

Our approach reflects our belief that supporting employees in their personal lives strengthens the fabric of our organization and helps build a more sustainable, resilient future for everyone.



Accountability as a catalyst for success

We believe that accountability fosters ownership, drives engagement, and creates the foundation for a healthy, productive workplace. Every employee is expected to take responsibility for their actions, performance, and decisions—an expectation reinforced through our structured performance development process.

Our annual accountability and performance review program is designed to:

- Align individual goals with company strategy and define success at both levels.
- Set achievable, measurable targets within each employee's control.
- Promote fact-based decision-making and clear ownership of outcomes.
- Enable meaningful career conversations between managers and employees.
- Support recognition, rewards, and a wide range of development opportunities.
- Encourage ongoing coaching through both formal and informal feedback.

The process includes three key milestones:

Annual planning – Employees and managers collaborate to establish objectives, core competencies, and development plans for the year.

Mid-year check-in – A focused review to assess progress, provide support, and realign as needed.

Year-end review – A comprehensive evaluation of goal achievement and performance over the fiscal year.

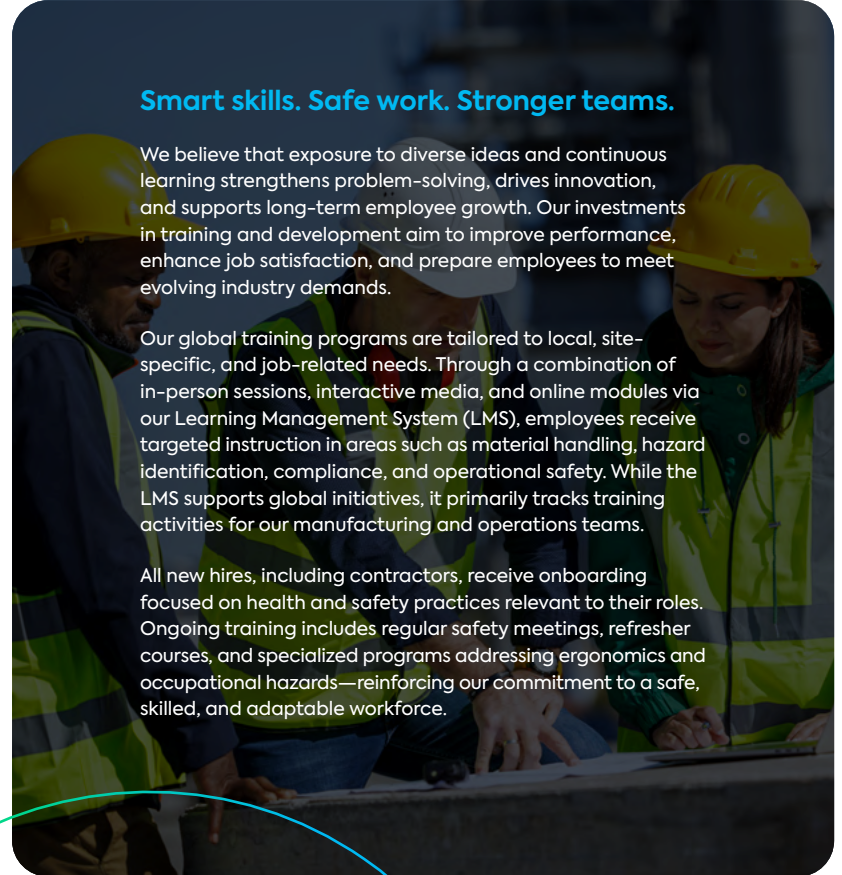
Through this disciplined approach, we create a culture where performance is driven by clarity, accountability, and continuous development.

Smart skills. Safe work. Stronger teams.

We believe that exposure to diverse ideas and continuous learning strengthens problem-solving, drives innovation, and supports long-term employee growth. Our investments in training and development aim to improve performance, enhance job satisfaction, and prepare employees to meet evolving industry demands.

Our global training programs are tailored to local, site-specific, and job-related needs. Through a combination of in-person sessions, interactive media, and online modules via our Learning Management System (LMS), employees receive targeted instruction in areas such as material handling, hazard identification, compliance, and operational safety. While the LMS supports global initiatives, it primarily tracks training activities for our manufacturing and operations teams.

All new hires, including contractors, receive onboarding focused on health and safety practices relevant to their roles. Ongoing training includes regular safety meetings, refresher courses, and specialized programs addressing ergonomics and occupational hazards—reinforcing our commitment to a safe, skilled, and adaptable workforce.



Different perspectives, one shared purpose

At the core of our sustainability strategy is the shared belief that diversity, equity, and inclusion (DEI) are essential to long-term business success and resilience. In an industry driven by innovation, safety, and precision, our ability to attract, engage, and empower a broad range of perspectives enhances not only our workplace culture but also our capacity to solve complex global challenges.

We foster an inclusive environment where all employees—regardless of background, identity, or experience—feel valued, supported, and equipped to thrive. Equity is embedded into our people practices, from hiring and training to career development and leadership advancement. Our goal is to ensure that every employee has access to opportunities based on merit, and that barriers to participation and growth are actively identified and removed.

Diversity brings strength to our teams, helping us approach problems from multiple angles and make better, more informed decisions. We believe that diverse teams foster greater innovation, improve collaboration, and reflect the broad customer base and global communities we serve.

As a specialty ingredient company operating in a science-driven and highly regulated environment, this diversity of thought enhances not only performance, but also safety, compliance, and sustainability outcomes.

Our DEI efforts are supported by formal policies, training programs, and employee resource initiatives designed to build awareness, encourage dialogue, and support inclusive leadership practices across the company. We also monitor workforce data and engagement feedback to track progress and identify opportunities for improvement.

Sustainability is not only about environmental stewardship—it's also about building organizations and communities where people can thrive. By prioritizing diversity, equity, and inclusion, we're building a company that is stronger, more agile, and better prepared to lead in an increasingly interconnected world.

Freedom of association

We respect our employees' rights and fully comply with all applicable workplace laws and regulations across the regions where we operate, including those related to organized labor. We offer competitive wages and benefits while fostering open communication and fair workplace practices, aiming to resolve matters without third-party involvement.

At locations with unionized workforces or covered by collective bargaining agreements, we recognize the respective employee representative group (e.g., union) as the exclusive representative of the employees in the bargaining unit and comply with all resulting legal and contractual obligations.



Accountable. Responsible. Ethical.

Operating responsibly in a complex, global marketplace requires more than regulatory compliance—it demands a deep and ongoing commitment to ethical conduct across every aspect of our operations. We uphold the highest standards of ethics and compliance as a critical part of our sustainability strategy and our license to operate. This helps us navigate diverse cultural, legal, and regulatory landscapes, mitigate business risks, and build long-term trust with our stakeholders, including customers, employees, suppliers, investors, and the communities where we operate.

All Advancion employees and business representatives are expected to demonstrate integrity in every action and decision, guided by our Code of Business Conduct and supporting policies. We also hold our global supplier network to these same high standards through our Supplier Code of Conduct, which outlines expectations for responsible, ethical, and lawful business practices.

To ensure accountability, we provide multiple, accessible channels for employees and third parties to raise questions or report suspected violations, including through local management, Human Resources, or via our website at advancionsciences.com. All reports are treated with confidentiality, and anonymity is respected to the fullest extent possible.

Our ethics and compliance program is not just about following rules—it is about cultivating a culture of transparency, fairness, and responsibility that supports sustainable growth and reinforces our license to operate globally.

Establishing clear expectations – from day one

Ethical conduct and compliance are foundational to how we operate—and that commitment begins from the moment an employee joins our company. Upon hiring, all employees globally are required to review, understand, and formally acknowledge key policies and standards, including our Code of Business Conduct, Anti-Corruption Policy, Respect and Responsibility Policy, and other ethics- and compliance-related policies.

We maintain a clear expectation of 100% compliance with all applicable international laws, regulations, and industry standards in every region where we operate. This expectation is not a one-time message—it is reinforced regularly through multiple internal channels. These include our global employee intranet, required compliance and ethics training, annual performance reviews, CEO-led global town halls, internal corporate and departmental communications, and more.

By consistently reinforcing these principles across our workforce, we are cultivating a strong, unified culture of integrity and accountability that supports our broader sustainability goals and long-term business success.

2024 facts and figures

Our people

405

full-time employees

62

contractors

11

part-time or temporary employees

40%

total percentage of full-time employees covered by a collective bargaining agreement

Parental leave*

	2024	2023	2022
Total number of full-time employees who were entitled to parental leave by gender	405	412	433
Male	297	301	317
Female	108	111	116
Total number of employees that took parental leave, by gender	4	5	3
Male	2	2	1
Female	2	3	2
Total number of employees that returned to work in the reporting period after parental leave ended, by gender	4	5	3
Male	2	2	1
Female	2	3	2
Total number of employees that returned to work after parental leave ended that were still employed 12 months after their return to work, by gender	3	5	3
Male	1	2	1
Female	2	3	2

Employee accountabilities and annual performance reviews

100%

percentage of eligible full-time employees who participated in our annual accountability development and / or performance review process.

Employee training and skills development*

22,641

hours of training completed in 2024

55

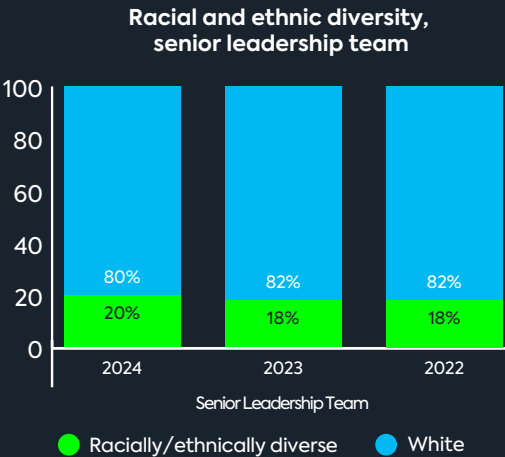
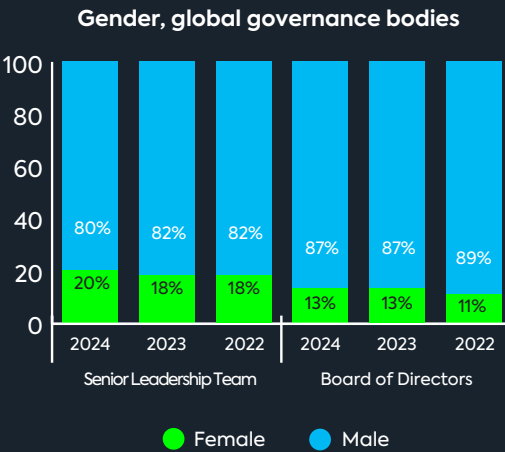
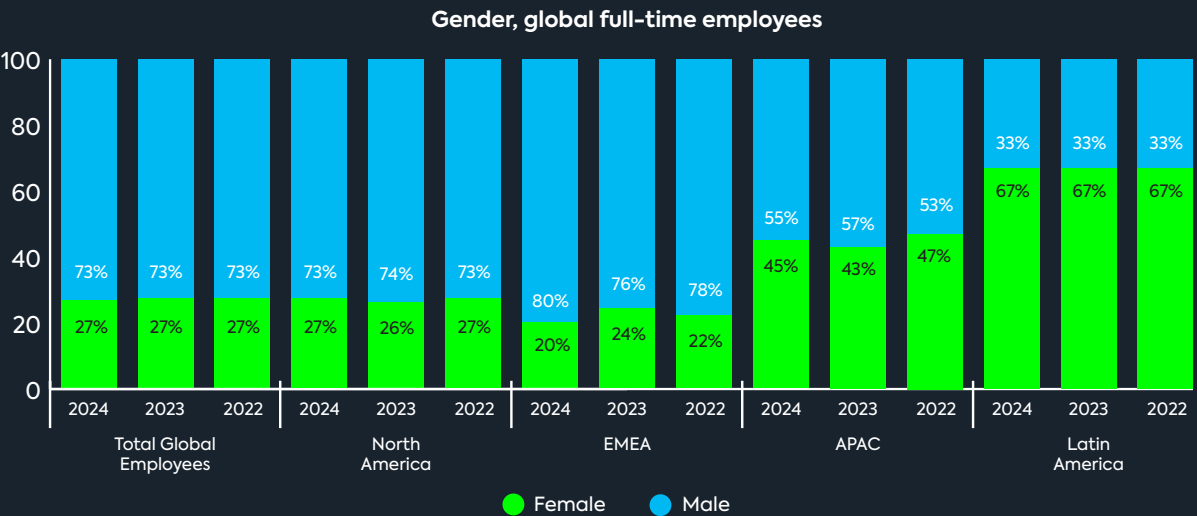
average number of training hours per full-time employee

	2024	2023	2022
Total training hours	22,641	22,338	25,548
Average training hours per full-time employee	55	54	58
Average training hours by gender			
Male	96	104	72
Female	20	20	23

*Data excludes interns, temporary workers / contractors and part-time employees.

2024 facts and figures

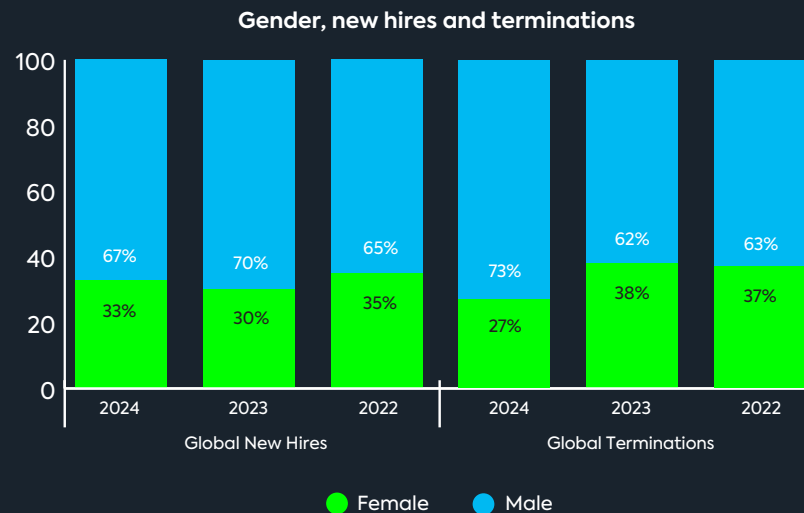
Diversity data*



*As of December 31, 2023. Data excludes interns, temporary workers / contractors and part-time employees.

2024 facts and figures

New hires and employee turnover*



The overall voluntary resignation rate for Advancion in 2024 was **13%**, compared to **11%** in both 2022 and 2021.

*As of December 31, 2023. Data excludes interns, temporary workers / contractors and part-time employees.



2024 facts and figures

Committed to 100% compliance

0 number of:

- confirmed incidents of discrimination and there were no legal actions initiated against Advancion or any employee related to discrimination.
- confirmed cases of corruption, and there were no legal actions initiated against Advancion related to anti-competitive behavior, anti-trust or monopoly practices.
- significant fines or non-monetary sanctions for non-compliance with environmental, social or economic laws and / or regulations.
- fines, penalties, or warnings resulting from incidents of noncompliance with regulations or voluntary codes concerning the health and safety impacts of products and services, or their marketing, packaging and labeling.
- substantiated complaints relating to breach of customer privacy and / or loss of customer data.
- violations involving the rights of indigenous people.
- confirmed instances of the use of corporate funds to make financial or in-kind political contributions, directly or indirectly. Advancion policy explicitly prohibits the use of corporate funds for political contributions.
- cases of non-compliance for our products and services or any labeling non-compliance.
- products recalled by regulatory authorities in 2023.
- incidents of non-compliance of marketing communications.

Upholding human rights in our operations and supply chain

Advancion is committed to protecting human rights and ensuring fair labor practices across our global operations. We strictly comply with all applicable child labor laws and do not employ underage workers. We also prohibit the use of forced, bonded, or compulsory labor in any form.

This commitment extends to our global supply chain. We require all suppliers and business partners to adhere to international labor standards, including regulations and conventions related to child labor and forced labor, as outlined in our Supplier Code of Conduct.

By promoting ethical labor practices throughout our value chain, we help safeguard the dignity and well-being of workers while supporting a more equitable and responsible global economy.



Safeguarding our workforce and the world around us

Our commitment to environmental, health, and safety (EH&S) excellence is driven by a clear vision: zero incidents. This goal reflects a proactive mindset that prioritizes prevention, accountability, and continuous improvement across all operations.

We translate global EH&S goals into localized objectives and site-specific targets at every operational and office location. Performance is measured monthly, with data collected and tracked against defined targets. Results are reported to senior leadership and reviewed with our Board of Directors to ensure transparency and oversight.

Our EH&S Policy is supported by global and regional standards modeled on ISO 14001, ISO 45001, ISO 9001, and the Responsible Care® Management System. Where applicable, we pursue third-party certifications to validate compliance and promote ongoing improvement.

By fostering a zero-incident culture and aligning with best-in-class standards, we are reinforcing our commitment to protecting people, the environment, and the communities where we operate.

Zero is achievable

For the second consecutive year, our manufacturing facilities in Sterlington, Louisiana, and Ibbenbüren, Germany, operated with zero recordable incidents—a standard of excellence sustained through the first half of 2025. This accomplishment highlights our unwavering commitment to safety and operational integrity, driven by the following key initiatives:



- **Targeted training programs** – Employees participate in regular safety training that includes hands-on workshops, emergency drills, and up-to-date instruction on evolving safety standards and protocols.
- **Robust safety systems** – Both sites have adopted advanced safety measures, including upgraded equipment, preventive maintenance programs, and enhanced risk-mitigation protocols to reduce hazards.
- **Active employee engagement** – A strong culture of safety is reinforced through open communication and involvement. Site safety committees empower employees to raise concerns, share ideas, and contribute to continuous improvement.
- **Leadership at the forefront** – Safety is championed from the top. Corporate and site leaders lead by example, embedding safety into decision-making processes and daily operations.
- **Commitment to continuous improvement** – Regular audits, feedback loops, and proactive inspections enable us to identify and address potential risks early, ensuring our safety practices evolve with changing needs.

Through these efforts, Advancion maintains its focus on nurturing a safe, resilient, and high-performing work environment across all operations.



A systematic approach to occupational health and safety

To support a safe, healthy, and sustainable workplace, Advancion operates using the Advancion Management System (AMS)—a comprehensive framework designed to guide and strengthen our operational discipline. Structured around the Plan / Do / Check / Act cycle, the AMS serves as our Common Management System, aligning global practices in a way that is practical, consistent, and value-driven for our company and stakeholders.

The AMS provides the foundation for developing and executing policies, processes, and procedures that protect the health and safety of our employees and the environment. It encompasses a wide range of guidelines that address critical safety concerns, including fire and explosion prevention, hazardous substance management, and the identification and control of risks associated with chemical manufacturing.

Advancion also applies the Precautionary Principle, especially when facing potential environmental or health risks where scientific data may be limited, reinforcing our proactive and risk-aware culture.

The AMS ensures that we meet or exceed all applicable regulatory requirements, including those established by the Occupational Safety and Health Administration (OSHA) and other regional authorities. In addition, Advancion maintains certification under the Responsible Care® Code of Conduct and adheres to its Sustainability Code of Conduct. As part of our ongoing certification and accountability, we track and publicly report key metrics related to environmental health, safety, and sustainability each year.

Through the AMS, Advancion embeds a culture of continuous improvement and responsible operations that supports long-term value creation for employees, communities, and the planet.

Workers covered by an occupational health and safety management system

Contingent staff are defined per OSHA requirements detailed in 29 CFR 1904.31 as those staff who are not employees, but who are under the direct supervision of Advancion on a day-to-day basis. Other on-site contractors are not included in this definition if they have a direct supervisor on-site.

Precautionary principle

We employ a risk-based management approach for our wholly owned operations, as well as for the supply chain and the products we sell and distribute. Through various audits and inspections of our own operations, those of certain customers and suppliers, as well as external audits by customers and specific certification bodies, we have adopted a preventative approach and adhere to the principles of continuous improvement.



Proactive safety management through the Advancion Management System (AMS)

The Advancion Management System (AMS) plays a critical role in safeguarding the health and safety of our workforce across all global operations. Designed to prevent work-related illnesses and injuries, the AMS includes a structured process for identifying, assessing, and mitigating occupational health hazards in every workplace. It operates on clearly defined review cycles and integrates the STOP principle—a risk-reduction hierarchy that prioritizes Substitution, Technical controls, Organizational measures, and Personal protective equipment—to guide the implementation of effective safety controls.

A comprehensive internal audit program ensures the integrity of our safety systems and drives continuous improvement across the organization. Site EH&S experts conduct regular assessments as part of the Advancion Audit Program, helping to maintain high standards of workplace and process safety, while identifying and addressing site-specific risks.

Employees play a vital role in maintaining a safe work environment. Hazards and near-miss incidents can be reported directly to supervisors or through SpheraCloud, our digital incident reporting and tracking system. As part of onboarding and ongoing safety training, employees are instructed to stop work immediately if they identify a hazardous situation and report it. This practice is central to our safety culture and embedded in the Advancion Safety Program.

When an incident occurs, we initiate a formal investigation to determine root causes and implement corrective actions to prevent recurrence. Investigations are guided by the Apollo Root Cause Analysis methodology and documented in the Apollo tool, with all actions tracked through SpheraCloud. Per internal policy, Lost-Time Accidents (LTAs) and Restricted Work Cases (RWCs) are not considered closed until an investigation is complete and verified.

Final closure of any incident report requires confirmation by the site or department leader that all corrective measures have been fully implemented and will be effective in preventing recurrence.

To further strengthen process safety, Process Hazard Analyses (PHAs) are conducted by qualified personnel at regular intervals, and at minimum every five years. In addition, any physical or procedural changes at a facility are subject to Management of Change (MOC) procedures, which ensure that all potential risks are identified and mitigated before implementation.

Through the AMS, Advancion creates a safe, healthy, and resilient working environment—one where employees are empowered to act, systems are continuously improved, and operational risks are proactively managed.

Thriving together in the workplace and at home

We believe that a healthy workforce is essential to long-term success—for our people and our business. We actively promote employee well-being by encouraging healthy lifestyles, fostering personal responsibility for health, and creating opportunities for proactive care and education.

During the COVID-19 pandemic, our focus included providing accurate, timely information about vaccine safety and preventive strategies to reduce the risk of infection for employees and their families. Site health professionals partnered with local physicians to host lunch-and-learn sessions covering general health topics, which continue to be integrated into regular site safety meetings.

Recognizing the importance of work-life balance, we offer a range of flexible work arrangements, including flextime, part-time options, and remote work, as well as a Parental Leave Policy introduced in 2021. These programs are designed to support employees through different stages of life and help them manage personal responsibilities alongside professional commitments.

In recent years, we further expanded our approach to preventative care. For example, a mobile health screening unit visited our Sterlington site to provide free angioscreenings to employees as an early-detection tool for heart-related conditions. This initiative reflects our commitment to finding meaningful, accessible ways to support the long-term health of our workforce—both inside and outside of the workplace.

Advancion will continue to invest in innovative health and wellness initiatives that meet the evolving needs of our employees and their families, reinforcing our commitment to a safe, supportive, and healthy work environment.

Promoting health and well-being across our global workforce

Promoting employee health and well-being is a shared commitment, guided by global standards and tailored local programs. Our company-wide Parental Leave Policy and environmental, health, and safety standards provide a consistent foundation, while each site adapts additional support to meet local needs.

Our manufacturing sites in Sterlington and Ibbenbüren have on-site occupational health nurses and visiting physicians offering medical surveillance, injury care, and support for other health concerns. Where on-site care isn't available, we collaborate with local clinics to ensure compliance with medical protocols.

All facilities are equipped with first aid kits, AEDs, and trained volunteer responders certified in First Aid, CPR, and AED use.

We also prioritize mental health through our Employee Assistance Program, which offers confidential counseling. Some sites provide voluntary smoking cessation programs, and employees facing addiction have access to treatment through our medical plans. Flexible work options help employees manage stress and personal challenges.

By combining global policies with local initiatives, Advancion fosters a culture of health, resilience, and well-being.

Engaging with employees to achieve zero incidents

Advancion fosters a proactive safety culture by encouraging participation, consultation, and open communication across all levels of the workforce. Every site maintains an established safety team or occupational protection committee in which employees are encouraged to participate. These teams provide a formal avenue for involvement in health and safety initiatives.

Regular site-wide safety meetings are held to ensure broad engagement, and all workers—including contractors and temporary employees—are invited to raise concerns or share feedback. In addition to direct engagement during meetings or with safety team members, employees may report issues anonymously through the site nurse (where available) or directly to the Environmental, Health & Safety (EH&S) Department. All workers are subject to the same rigorous safety policies and procedures, regardless of employment type.

Training and awareness on workplace safety

Comprehensive and ongoing training is a key element of Advancion's occupational health and safety strategy. New employees and contractors receive thorough onboarding that includes role-specific safety training and orientation to the safety requirements of their work environment.

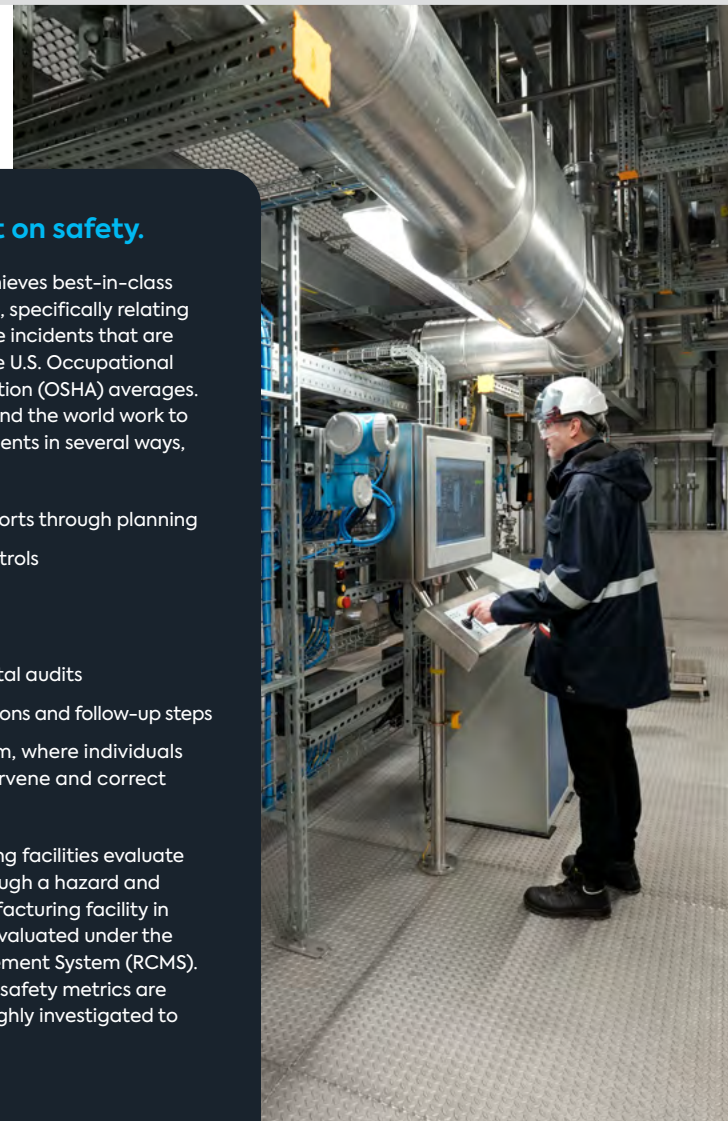
To support ongoing awareness and compliance, employees regularly participate in safety meetings and refresher training sessions tailored to site conditions and regulatory requirements. Advancion also leverages a range of training formats, including classroom sessions, interactive media, videos, and online modules. These tools address a variety of safety topics, from ergonomics to process-specific risks, and are adapted to the unique needs of office, production, and development environments.

Best-in-class. Built on safety.

Advancion consistently achieves best-in-class overall safety performance, specifically relating to injury rates and lost-time incidents that are dramatically lower than the U.S. Occupational Safety & Health Administration (OSHA) averages. Advancion employees around the world work to eliminate on-the-job accidents in several ways, including:

- Accident prevention efforts through planning
- Process and facility controls
- Safety training
- Safety committees
- Safety and environmental audits
- Post-incident investigations and follow-up steps
- Actively Caring program, where individuals are encouraged to intervene and correct unsafe conditions.

All Advancion manufacturing facilities evaluate site specific EH&S risks through a hazard and risk assessment. The manufacturing facility in Sterlington has also been evaluated under the Responsible Care® Management System (RCMS). The employee and process safety metrics are tracked closely and thoroughly investigated to prevent recurrence.



2024 facts and figures

Global safety performance

0.84	0
total recordable injury rate (2023: 0.42)	lost-time incident rate (2023: 0.16)
0	0
work-related illnesses (2023: 0)	tier 1 process safety incidents (2023: 0)
0	744,303*
motor vehicle accidents (2023: 0)	total employee hours worked (2023: 960,833)

Work-related injuries

Employee and contingent staff safety metrics	2024	2023	2022
Work-related fatalities	0	0	0
Lost-time incident rate	0	0.165	0.22
Lost-time injuries	0	1	1
Recordable rate	0.84	0.42	0.65
Recordables	3	2	3
On-site independent contractor safety metrics	2024	2023	2022
Work-related fatalities	0	0	0
Lost-time incident rate	0	0	0
Lost-time injuries	0	0	0
Recordable rate	0	0	0
Recordables	0	0	0
*Note: Recordable rate = (# of recordables *200,000) / Hours Worked. Lost Time Incident Rate = (# of LTI *200,000) / Hours Worked			
Process safety metrics	2024	2023	2022
Tier 1	0	0	0
Tier 2	1	2	2



*Reflects an updated methodology for tracking employee hours worked at our Ibbenbüren, Germany facility.

Advancion applied the OSHA-established calculation methodology to report recordable incident rates that are comparable across any industry or group. The standard base rate for the calculations is based on a rate of 200,000 labor hours. This number (200,000) equates to 100 employees, who work 40 hours per week, 50 weeks per year. Using this standardized base rate, any company can calculate their rate(s) and get a percentage per 100 employees.

Advancion utilizes medical professionals (on-site nurse) to retain all health records. These records will include an employee's initial screening, any periodic evaluations, and notes from off-site referrals. Currently, there are no work-related illnesses that must be tracked.

Responsible resource management and environmental stewardship

Our Sustainability Blueprint and EH&S Management System form the backbone of our approach to minimizing environmental impact. These systems guide how we manage waste, conserve resources, and embed environmental responsibility into daily operations. By prioritizing efficiency, innovation, and accountability, we are working to reduce our footprint while supporting long-term business and environmental resilience.



Operationalizing sustainability from process to performance

Protecting the environment is a core responsibility and a critical component of how we operate. We are committed to minimizing our environmental footprint by embedding sustainable practices into every stage of our value chain—from sourcing raw materials to optimizing production and managing waste.

Through a combination of strategic planning, innovation, and active stakeholder engagement, we aim to use resources more efficiently, reduce emissions, and safeguard natural ecosystems for future generations. The following pillars represent the key focus areas driving our environmental performance.

Integrating sustainability into operations

We pursue resource efficiency by optimizing the use of raw materials, energy, and water across our production processes. This includes sourcing responsibly from suppliers who share our values

around sustainability and ethics. Our waste management practices focus on reduction, recycling, and the safe handling of chemical waste to prevent environmental harm.

Driving innovation for environmental benefit

Innovation plays a central role in advancing our environmental goals. We invest in green chemistry and R&D to design products and processes that eliminate or minimize hazardous substances and incorporate renewable resources. Advanced process technologies—such as automation, data analytics, and process intensification—help us improve efficiency, while emission control systems reduce greenhouse gases and other pollutants.

Engaging stakeholders and upholding standards

We maintain strict compliance with all relevant environmental regulations and often exceed them through voluntary, proactive measures. Open engagement with local communities helps ensure transparency and builds trust around our environmental initiatives. We regularly report on our progress through detailed sustainability disclosures that reflect both our achievements and areas for growth.

Commitment to continuous improvement

Environmental responsibility is reinforced through our global management systems, which are aligned with internationally recognized standards. We track performance using robust KPIs, conduct regular audits and encourage employee engagement through training and involvement in site-level sustainability initiatives.



Focused environmental initiatives

We are advancing specific programs to reduce our environmental impact, including:

- **Energy efficiency:** Investing in energy-saving technologies and practices to lower emissions.
- **Water conservation:** Using closed-loop systems and other innovations to reduce water use.
- **Biodiversity protection:** Preserving and restoring ecosystems surrounding our facilities to promote local biodiversity.

Our global performance is monitored through routine data collection from all operations and offices. Senior leadership reviews this data regularly, with third-party verification where applicable, to ensure alignment with our goals and drive accountability at all levels of the organization.

Fueling the future

Advancing renewable energy and operational efficiency

We source electricity for all Advancion sites from local utilities, including our corporate headquarters in Buffalo Grove, Illinois; manufacturing facilities in Sterlington, Louisiana and Ibbenbüren, Germany; our cell culture production site in Davis, California; and six global Customer Application Centers (CACs). To support our transition toward cleaner energy, we are investing in on-site renewable generation at select locations.

In 2022, we installed a solar electricity plant at our Ibbenbüren site. By 2024, this system generated approximately 4.87 GWh of electricity—meeting around 35% of the site's annual electricity needs. Our Davis facility also contributes to our renewable energy footprint, with rooftop solar panels that help offset demand from non-renewable electricity sources.

In addition to electricity, we consume natural gas at several locations. Natural gas is used for building heating at the Buffalo Grove and Davis sites, while the Sterlington and Ibbenbüren plants use it as a primary fuel source for site boilers that generate steam required in manufacturing operations.

Our total energy consumption metric reflects both purchased electricity and natural gas use across our operations. We track energy intensity by dividing this total consumption by the total metric tons of production—providing a measure of operational energy efficiency over time.

Reduction of energy consumption

As part of our commitment to reducing energy consumption and emissions, Advancion has prioritized increasing renewable energy sourcing and improving energy efficiency at our two largest energy-consuming sites: Ibbenbüren and Sterlington.

In 2024, 58% of the purchased electricity at our Ibbenbüren manufacturing facility was sourced from renewable energy—building on the site's existing solar panel system. These combined efforts significantly reduced reliance on fossil fuel-based electricity.

Problem solving with purpose

At our Sterlington facility, a dedicated energy savings team developed a roadmap to help achieve our energy intensity reduction goals. Several efficiency projects were already implemented, with a strong focus on optimizing the site's steam-generating boilers. One key initiative was the 2023 installation of a selective catalytic reduction (SCR) unit on boilers 6 and 7, designed to treat nitrogen oxide (NO) emissions from flue gas. While the SCR project primarily addressed emissions control, it also supported broader sustainability objectives including waste and energy reduction.

As part of this project, we began utilizing nitroparaffin fuels—byproducts of nitromethane production such as nitroethane, 1-nitropropane, and 2-nitropropane—as an alternative to natural gas. These fuels, when produced in excess of market demand, are now repurposed as boiler fuel. In 2024, this transition led to a measurable 13% reduction in the total volume of natural gas consumed at the Sterlington site, contributing to both resource efficiency and lower emissions.



2024 facts and figures

-6.1%

reduction in 2024 energy intensity versus 2023
(kWh/MT production)

Energy intensity

In 2024, our energy intensity decreased by approximately 6%, driven by both changes in site-level production and the successful implementation of targeted energy-saving initiatives. This progress reflects continued momentum toward achieving our 2030 energy reduction target, with current trends indicating we remain on track to meet our long-term goal. While we do not currently calculate specific reductions for energy requirements of products and services, the overall energy intensity of the site demonstrates that products are being manufactured in a manner that requires less energy overall.

Energy consumption

Energy metric	2024	2023	2022	2021
Total energy consumption (kwh)	644,790,415	654,048,302	728,142,325	716,823,929
Total production (mt)	135,237	128,868	156,646	141,211
Energy intensity (kwh / mt production)	4,767.87	5,075.32	4,648.32	5,076.26
Energy source (kwh)	2024	2023	2022	2021
Total natural gas for fuel	546,069,201	560,151,723	626,328,735	616,837,981
Electricity purchased and consumed	95,093,133	93,896,579	101,813,590	99,985,948
Purchased electricity from nonrenewable energy sources	89,015,133	86,885,704	92,616,715	90,283,330
Total purchased or self-generated renewable energy	9,706,081	7,010,875	9,196,875	9,702,618
Total energy consumption	644,778,334	654,048,302	728,142,325	716,823,929

A shared responsibility for a shared resource

Water availability and quality are critical to our manufacturing operations and the well-being of the communities in which we operate. We manage water responsibly by minimizing consumption, reusing water where feasible, and ensuring all wastewater is treated prior to discharge in accordance with local regulations.

All Advancion locations source potable water from local municipal utilities. At our Sterlington manufacturing facility, additional water is withdrawn from the Ouachita River and treated onsite before use. Our Ibbenbüren and Sterlington plants—our two largest water users—employ closed-loop systems through their cooling towers to reuse water as efficiently as possible. All wastewater is sampled and analyzed prior to discharge to ensure compliance with applicable effluent regulations.

Minimizing discharge impacts

We maintain compliance with all applicable water discharge standards through robust management systems, including a formal management of change process, incident reporting protocols, and strict operational controls. Both manufacturing sites have secondary containment infrastructure to protect nearby groundwater and surface water sources.

We utilize the World Resources Institute's Aqueduct Water Risk Atlas annually to assess potential water stress in our operating regions. To date, none of our manufacturing sites are located in water-stressed areas, but we have proactively committed to reducing our overall water footprint.

Site-level water management practices

Sterlington, Louisiana

Water is withdrawn from the Ouachita River and treated onsite to produce two types of water for use: clarified and reverse osmosis (demineralized) water. Flow meters track volumes from both river and municipal sources. Treated water is stored in designated reservoirs with no significant operational changes reported in 2024. All discharges comply with the Louisiana Pollutant Discharge Elimination System (LPDES) permit, which reflects local river conditions and regulatory requirements.

Ibbenbüren, Germany

Process water and stormwater collected within containment areas are directed to an on-site aeration pond for treatment. Treated water is then discharged to the municipal grid for further processing and reuse. Only stormwater from non-process areas is discharged directly to the nearby river. All operations follow stringent German environmental regulations.



Protecting water, preserving communities

Reducing water withdrawal

While all Advancion sites rely on municipal water, Sterlington also withdraws freshwater from the nearby Ouachita River under a permitted intake system. This intake was assessed per the U.S. EPA's Clean Water Act 316(b), and the findings informed conditions in the site's Louisiana Pollutant Discharge Elimination System (LPDES) permit, including measures to maximize reuse in cooling tower systems.

We recognize that water withdrawal is a critical metric in conserving natural water resources. Our water savings teams has developed and implemented a range of reduction projects at our sites to meet long-term conservation goals.

Responsibly managing water discharge

Water discharged from our facilities includes treated process wastewater and stormwater. At Ibbenbüren, this discharge passes through an aeration pond before reentering the municipal grid. At Sterlington, both wastewater and stormwater

are processed through the site's on-site treatment system before being discharged to the river.

Local agencies establish discharge parameters for each site. In Germany, regulations emphasize biological safety and chemical treatment. In Louisiana, the LPDES permit defines a comprehensive set of sampling frequencies for various pollutants, ranging from real-time pH and flow to annual tests for metals and organics.

Understanding water consumption

We define water consumption as the difference between total withdrawals (from river and municipal sources) and water returned to the environment via treated discharge. Stormwater that falls outside the process containment areas is excluded from this calculation.

We also take steps to support groundwater recharge by maintaining permeable surfaces, such as gravel, across significant areas of our manufacturing sites. This practice enhances stormwater absorption and contributes to long-term water conservation in our communities.

A focus on continuous improvement

In 2024, our water intensity metric decreased by 11.2% compared to our 2020 baseline and 26% versus 2023. This achievement was due to a combination of optimized operations and changes in production. Although total water withdrawal increased slightly over our 2020 baseline and prior year, we improved efficiency at higher production volumes.

One key initiative in 2024 was the upgrade of reverse osmosis membranes at the Sterlington water plant. This single improvement reduced water withdrawal from the Ouachita River by 5% compared to 2023—saving nearly 40 million gallons of water annually.



2024 facts and figures

Water discharge at our two main manufacturing sites includes treated process wastewaters and stormwaters. At the Ibbenbüren plant, process and storm waters contained within the site are directed to an on-site aeration pond before being released into the city wastewater system, where they are further treated at the municipal water plant. Similarly, the Sterlington plant directs waste and storm waters to an on-site treatment facility before discharging treated effluent into the Ouachita River.

Local regulatory agencies set priority substances of concern for both sites. Ibbenbüren regulations focus on controlling waterborne pathogens like legionella and ensuring proper treatment of chemicals such as amines. At Sterlington, discharge parameters are defined by the state-issued LPDES permit, with continuous monitoring of flow and pH, weekly testing of biological oxygen demand (BOD) and total suspended solids (TSS), and periodic analysis of metals, volatile organic compounds (VOCs), and biomonitoring indicators.

-26.0%
reduction in water intensity
(megaliter/MT production) versus 2023

Water withdrawal, consumption and discharge

Water withdrawal	2024	2023	2022	2021
(In megaliters)	Fresh water (≤ 1,000 mg/L TDS)			
Surface water	2,784	2,933	3,014	3,055
Ground water	-	-	-	-
Third-party water	140	112	149	152
Total withdrawal	2,924	3,045	3,163	3,207
Water consumption (megaliters)	2024	2023	2022	2021
Sterlington	566	794	748	717
Ibbenbüren	41	22	48	49
Buffalo Grove	0.34	0.08	-	-
Davis	0.01	5	-	-
Total consumption	607	821	796	766
Water consumption intensity (megaliter / metric ton)	0.0047120	0.0063682	0.0050805	0.0054260
Water discharge	2024	2023	2022	2021
(In megaliters)	Other water (> 1,000 mg/L TDS)			
Surface water	2,245	2,157	2,306	2,367
Ground water	-	-	-	-
Third-party water	72	67	61	73
Total withdrawal	2,317	2,224	2,367	2,440

Charting a path to a lower-carbon future

Reducing greenhouse gas (GHG) emissions is a central part of our commitment to sustainability and climate responsibility. We track and manage our emissions through the Advancion Management System (AMS), which aligns with the American Chemistry Council's Responsible Care® framework and all applicable environmental regulations.

To strengthen the credibility of our reporting, we partnered with an independent consultant to verify our Scope 1, 2, and 3 emissions inventories starting in 2021. This multi-year process helped improve data quality across key sources.

For example, in 2023, our third-party consultant identified several opportunities to improve the accuracy of our emissions calculations. One key update involved refining the density value used for nitroparaffin heads—a waste stream utilized in boilers at our Sterlington site to produce steam. By incorporating site-specific analytical data, this adjustment resulted in a higher calculated CO₂e value than previously reported. Additionally, it was determined that renewable electricity procured for the Ibbenbüren site should not have been excluded from Scope 2 reporting under the location-based methodology. While renewable energy can be credited under the market-based approach, the necessary documentation from

local utilities is still pending. We are actively working to obtain this data and expect to include it in future reports. Additionally, in 2024, the consultant team identified that discharges from the Sterlington site wastewater treatment plant should be included since they could have some emissions from process chemicals treated. These updates were also applied retroactively to previous years to ensure that correct data is reported herein.

Emissions are calculated following the Greenhouse Gas Protocol, using the latest global warming potential factors recommended by the Intergovernmental Panel on Climate Change (IPCC). Scope 1 covers direct emissions from our operations, including combustion sources, vents, flares, and fugitive emissions. Scope 2 includes indirect emissions from purchased electricity, calculated using the location-based method. Scope 3 emissions—capture indirect upstream and downstream sources across our value chain.

Our Scope 1 and 2 calculations currently cover all core operations: the Sterlington and Ibbenbüren manufacturing sites, the Buffalo Grove corporate office, the Expression Systems facility in Davis, California (added in 2023), and our six Customer Application Centers (added in 2024). Emissions

are calculated using the Greenhouse Gas Protocol developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD).

GHG emissions are reported in metric tons of CO₂ equivalent (CO₂e), incorporating carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) using 100-year Global Warming Potentials (GWP) from the latest Intergovernmental Panel on Climate Change (IPCC) assessment reports (AR5 for 2021 and AR6 thereafter). Fluorinated compounds are not part of our operations and are excluded from reporting.

This detailed and evolving understanding of our footprint is helping us prioritize targeted reduction projects—such as the installation of a Selective Catalytic Reduction (SCR) system in Sterlington and the expansion of solar energy capacity in Ibbenbüren—as we continue our transition to a lower-carbon future.

Measuring progress

Scope 1 and Scope 2 GHG emissions

Scope 1 GHG emissions are estimated using fuel consumption volumes, emission data collected at the vents and flare stacks, as well as estimation of fugitive emissions, typically based on equations developed by EPA.

Scope 2 emissions are estimated using utility consumption rates and the emission factors for the upstream production of the imported utilities and the delivery of these utilities to the Advancion facilities. The emission factors for Scope 2 GHG emissions were obtained from the Emission and Generation Resource Integrated Database (eGRID) database by the U.S. Environmental Protection Agency (EPA) for facilities in North America and the European Union GHG emission factor hub for facilities in Europe.

GHG Intensity is calculated by combining metric tons of CO₂e (which includes CO₂, CH₄, and N₂O), from both Scope 1 combustion sources and Scope 2 location-based data for our sites and dividing it by the metric tons of production for that year.

Scope 3 GHG emissions

We work with a third-party consultant to calculate Scope 3 emissions using guidance from the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard, a supplement to the GHG Protocol developed by the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD).



We began tracking Scope 3 emissions in 2021, which we use as our baseline year. That inventory included emissions from our corporate headquarters, manufacturing sites in Sterlington, Louisiana and Ibbenbüren, Germany, and warehouses around the world. In 2023, we added data from our Expression Systems facility in Davis, California. In 2024, we included data from our six Customer Application Centers (CACs) in Scope 1 and 2 reporting, but not yet in Scope 3 due to limited data collection systems. Since the CACs have a relatively small operational footprint, they are not expected to significantly impact our total Scope 3 emissions. However, we are working to include them in future Scope 3 reporting.

Our Scope 3 inventory includes the following categories: Purchased Goods and Services and Capital Goods (calculated using spend-based data), and Use of Sold Products and End-of-Life Treatment of Sold Products (added starting in 2022 with the availability of data). Other categories are calculated using the U.S. Department of Energy's GREET 2021 model for emissions factors. Some categories are excluded because they are not applicable to our business or related data is not readily available.



2024 facts and figures

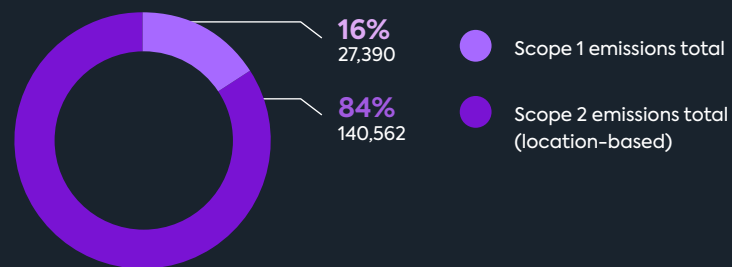
-7.9%

reduction in 2024 GHS Scope 1 and 2 emissions intensity versus 2023 (MTCO₂eq/MT production)

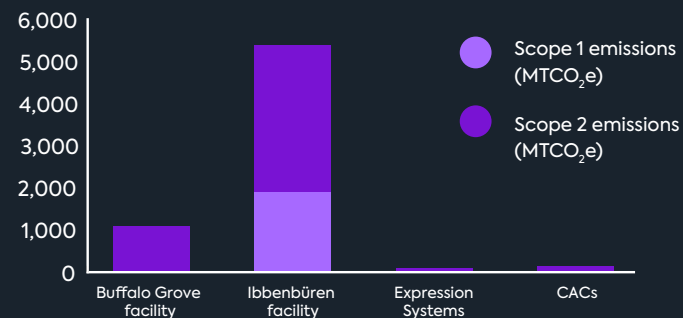
Direct (Scope 1) GHG emissions and energy indirect (Scope 2) GHG emissions

Emissions	2024	2023	2022	2021
GHG Scope 1 (MTCO ₂ eq)	142,501	146,713	157,779	149,366
GHG Scope 2, location-based (MTCO ₂ eq)	32,161	33,991	35,634	33,684
GHG total (MTCO ₂ eq)	174,662	180,704	193,413	183,050
GHG intensity (MTCO ₂ eq/MT production)	1.2915	1.4022	1.2347	1.2963

2024 Sterlington GHG emissions (MTCO₂e)



2024 Scope 1 and 2 emissions (MTCO₂e) excluding Sterlington



2024 facts and figures

The 2024 GHG Scope 3 calculations are reported to be higher than the previous year in categories 1 (purchased goods and services) and category 12 (end of life treatment of sold products). For category 1, the increase was due to an update per the USEEIO model to use 2022 as the base year for currency rather than 2012 as in previous year's calculations, which resulted in updated emission factors.

For category 12, an omission of our final product's nitrogen compounds was identified in previous calculations by the consultant. The category 12 data for 2024 now includes these nitrogen compounds, utilizing an approach that BASF outlined in their 2023 Scope 3 GHG Inventory Report. To prevent double counting, N₂O emissions from agricultural products are excluded, as they are already captured under category 11.

We currently do not have reduction goals for Scope 3 emissions, as much of the data is based on spending rather than direct measurements. We continue to explore ways to improve the quality of our data so that we can set meaningful targets in the future.

Other indirect (Scope 3) GHG emissions

GHG Scope 3 (MTCO ₂ eq)	2024	2023	2022	2021
C1 purchased goods and services	93,287	71,281	147,153	164,468
C2 capital goods	3,121	6,006	4,626	8,574
C3 fuel and energy related activities	27,514	32,355	27,871	26,612
C4 upstream transportation and distribution	2,706	2,650	3,627	3,047
C5 waste generated in operations	3,702	2,141	9,783	18,899
C6 business travel	232	209	168	38
C7 employee commuting	1,104	1,407	1,379	1,338
C8 upstream leased assets	Not relevant	Not relevant	Not relevant	Not relevant
C9 downstream transportation and distribution	2,757	3,332	4,232	5,729
C10 processing of sold products	Not evaluated	Not evaluated	Not evaluated	Not evaluated
C11 use of sold products	12,803	12,059	13,868	Not evaluated
C12 end of life treatment of sold products	147,768	90,492	88,670	Not evaluated
C13 downstream leased assets	Not relevant	Not relevant	Not relevant	Not relevant
C14 franchises	Not relevant	Not relevant	Not relevant	Not relevant
C15 investments	Not relevant	Not relevant	Not relevant	Not relevant
GHG Scope 3 upstream total	131,666	116,049	194,607	222,976
GHG Scope 3 downstream total	163,328	105,883	106,770	5,729
GHG Scope 3 total (MTCO ₂ eq)	294,994	221,932	301,377	228,705
GHG Scope 3 intensity (MTCO ₂ eq/MT production)	2.1813	1.7222	1.9239	1.6196

2024 facts and figures

-17.9%
reduction in NOx
emissions versus 2023

Nitrogen oxides (NOx), sulfur oxides (SOx),
and other significant air emissions

Process emissions	2024	2023	2022	2021
Nitrogen oxides (NOx) (MT)	455	554	611	540
Volatile organic compounds (VOC) (MT)	212	226	225	187
NOx intensity (MT / MT production)	0.003365	0.004299	0.003902	0.003823
VOC intensity (MT / MT production)	0.001568	0.001752	0.001435	0.001324

Based on our proprietary chemical manufacturing process utilized at the Sterlington facility, nitrogen oxides (NOx) and volatile organic compound (VOC) emissions were identified as a significant source of emissions. These emissions have been routinely calculated and submitted through the Louisiana Department of Environmental Quality Emissions Inventory (ERIC) using criteria from the Louisiana Environmental Regulatory Code, Title 33:III.919. NOx and VOC Intensity values are calculated utilizing metric tons of emissions divided by metric tons of production.

We have made measurable reductions in VOC emissions through the installation of internal floating roofs at many of the larger aboveground storage tanks in our Sterlington plant. These internal floating roofs act to prevent and contain VOC emissions from chemical products stored there. Additionally, our SCR project installed in 2023 at the Sterlington site boilers is designed to significantly reduce the NOx emissions generated when on-site wastes are burned in the boilers. Even after utilizing nitrogen-based products as fuels in the boilers, the SCR reduced the total site NOx by almost 15% in 2024 over a 2020 baseline.



Cutting waste, not corners

Responsible waste management across our operations

We are committed to the responsible management of all waste generated at our facilities. Waste minimization and handling practices are guided by our global Environmental Health and Safety (EHS) policy, adherence to the American Chemistry Council's Responsible Care® initiative, alignment with industry best practices, and strict compliance with applicable environmental regulations.

Operational compliance is regularly assessed through annual plan reviews, internal audits, and regulatory inspections to ensure waste is managed safely and responsibly.

Each facility maintains designated waste storage areas tailored to the type and regulatory classification of the waste. We closely track all off-site waste through detailed waste profiles and manifests, ensuring transparency and environmental accountability throughout the disposal process.

Advancing waste minimization and material circularity

Waste minimization is embedded in the daily operations of our manufacturing facilities. Our engineering teams formally evaluate waste reduction opportunities during new project planning, and the overall effectiveness of these efforts is reviewed annually, at a minimum.

We are currently on track to meet our target of a 10% reduction in waste intensity from our 2020 baseline. This progress has been driven in part by repurposing nitroparaffin fuels for on-site energy generation through our selective catalytic reduction (SCR) unit project—diverting material that was previously classified as hazardous waste and sent off-site. Additional improvements have come from broader waste reduction initiatives implemented across our sites.

We actively pursue material circularity wherever feasible. A significant portion of our waste is diverted from traditional disposal methods through reuse, recycling, or energy recovery.

Through our beneficial reuse program, we collaborate with customers who can use surplus products, helping to extend the life cycle of valuable materials. Recyclable materials are managed through qualified off-site partners to ensure they are responsibly processed and given a second life.

To measure progress and drive improvement, we track the total volume of waste generated annually—both on-site and off-site—along with the volume diverted through recycling, reuse, or energy recovery. Beginning in 2023, we also began measuring waste reused as process input material within our operations. This comprehensive tracking enables us to assess our progress toward circularity in waste management. In 2024, we successfully diverted or recovered energy from 1,808 metric tons of waste, underscoring our commitment to reducing environmental impact through smarter waste practices.



Comprehensive waste tracking and responsible disposal

Our operations generate both hazardous and non-hazardous waste streams, which are responsibly managed through qualified third-party disposal facilities. Selection of these facilities is based on a rigorous evaluation process, including a thorough review of compliance history. As a member of CHWMEG—a non-profit organization that provides independent audits of waste management vendors—we leverage detailed reports to inform and validate our disposal partnerships. All off-site waste is tracked through the manifest system, ensuring cradle-to-grave accountability. Manifest documentation is maintained by our Environmental, Health & Safety (EH&S) team and is available upon request.

At our Sterlington site, we manage two specific hazardous waste streams: a low pH material disposed of via a permitted injection well, and a “heads” stream that is safely utilized as a fuel source in on-site boilers for steam generation. Both waste streams are managed in full compliance with applicable environmental regulations, with oversight and data management conducted by our Utilities and EH&S teams.



Integrating circularity and recycling into daily operations

Waste minimization is a long-standing part of our routine operations. In 2023, we identified several existing practices at our Sterlington site that align with our circularity goals. These processes enable the recovery and reuse of materials that might otherwise be considered waste. For example, methanol, TRIS AMINO™ slurry, TRIS AMINO™ HCl, and nitroparaffin fuels are all recovered and reintroduced into manufacturing processes, reducing the need for virgin material inputs.

In addition, when materials fall outside of customer sales specifications, our standard practice is to return them to the manufacturing department for rework. This often allows us to

bring the materials back into specification and prevent them from becoming waste. We are working to develop tracking metrics for this activity in future reporting cycles.

We have also thoroughly explored recycling options for a wide range of waste streams. Routine recycling practices include spent catalyst, used oil, parts washer solvent, scrap metal, concrete, plastics, and universal wastes such as electronics, fluorescent lamps, and batteries. Data from these efforts are captured in our waste diversion metrics, reflecting our ongoing commitment to reduce environmental impact through resource recovery.

2024 facts and figures

-1.0%

reduction in 2024 waste intensity
versus 2023 (MT /MT production)

Waste generated

Waste generation (MT)	2024	2023	2022	2021
Non-hazardous	6,751	6,812	8,586	6,476
Hazardous	19,491	18,453	21,793	22,014
Total waste volumes	26,242	25,265	30,379	28,490
Total waste diverted	1,808	8,702	102,547	4,568
Waste intensity (MT/MT of production)	0.19404623	0.196057962	0.193935831	0.20175226

Waste diverted from disposal

Waste diverted (MT)	2024	2023	2022	2021
Hazardous waste diverted				
Recycled	581	1,519	2,890	4,186
Recycled for process inputs	341	481	-	-
Reused	-	3,577	1,145	-
Total hazardous waste diverted (MT)	922	5,577	4,035	4,186
Non-hazardous waste diverted				
Recycled	320	2,737	98,511	382
Recycled for process inputs	566	389	-	-
Reused	-	-	-	-
Total non-hazardous waste diverted	886	3,126	98,511	382

2024 facts and figures

Waste directed to disposal

Waste disposal by treatment method (MT)	2024			2023			2022			2021		
	On-site	Off-site	Total	On-site	Off-site	Total	On-site	Off-site	Total	On-site	Off-site	Total
Hazardous waste												
Incinerated (with energy recovery)	6,939	8	16,947	16,117	186	16,302	16,952	1,864	18,817	17,138	1,072	18,210
Incinerated (without energy recovery)	-	119	119	-	19	19	-	0.04	0.04	-	671	671
Landfill	-	-	-	-	-	-	-	-	-	-	-	-
Injection well	2,425	-	2,425	2,132	-	2,132	2,976	-	2,976	3,133	-	3,133
Total hazardous waste (MT)	19,364	127	19,491	18,249	205	18,453	19,928	1,864	21,793	20,271	1,743	22,014
Non-hazardous waste												
Incinerated (with energy recovery)	-	10	10	-	15	15	-	6	6	-	7	7
Incinerated (without energy recovery)	-	-	-	-	-	-	-	-	-	-	-	-
Landfill	-	2,941	2,941	-	3,571	3,571	-	5,701	5,701	-	4,907	4,907
Injection well	-	3,799	3,799	-	3,223	3,223	-	2,879	2,879	-	1,562	1,562
Total non-hazardous waste (MT)	-	6,750	6,750	-	6,809	6,809	-	8,586	8,586	-	6,476	6,476

We maintain comprehensive cradle-to-grave tracking for all waste generated to ensure it is managed in a way that safeguards human health and the environment. Our Environmental, Health & Safety (EH&S) Department oversees a dedicated waste database that categorizes materials by type—hazardous or non-hazardous—as well as by treatment method and disposal location (on-site or off-site).

This data is routinely reviewed and used to verify compliance with applicable environmental regulations, supporting transparent and responsible waste management practices across our operations.



Designed for performance, delivered with integrity

We understand our responsibility to reduce the societal and environmental impact of our products—as well as those of our customers. Through ongoing product stewardship initiatives, we are committed to going beyond compliance by embedding economic, environmental, and social considerations into our global product and service strategies.

As part of our proactive approach, we leverage advanced screening tools—such as *in silico* (computer-based) and *in vitro* (laboratory-based) methods—to assess chemical safety early and often throughout the product development process. These methods allow us to identify information gaps and implement data-driven strategies to support the safe and sustainable development, manufacturing, and commercialization of our products.

In 2024, 100% of the new chemistries we developed were evaluated using these predictive safety tools—demonstrating our commitment to responsible innovation and continuous improvement in product sustainability.

Screening for safety: smarter product innovation

We conduct a product risk characterization on 100% of our portfolio of products every three years using the American Chemistry Council's (ACC) Product Risk Characterization Tool in compliance with the Responsible Care® Management System Standards.

The risk characterization evaluates products to prioritize for which health and safety impacts require special product stewardship programs to mitigate adverse impacts to human health and / or the environment and target product improvement. Additionally, health and safety impacts of products are assessed whenever there is a change in normal use patterns, applications, or markets.

To further strengthen our approach, Advancion participates in an annual third-party ESG performance assessment. Insights from this review help us enhance our chemical management systems and improve the sustainability profiles of our products and practices. All Advancion products are reviewed and assessed in accordance with these protocols, ensuring that safety, regulatory compliance, and sustainability are integral to how we deliver product information and support.

In 2021, Advancion began participating in the ACC Voluntary Sustainability Metrics Reporting which annually tracks six sustainability metrics that include:

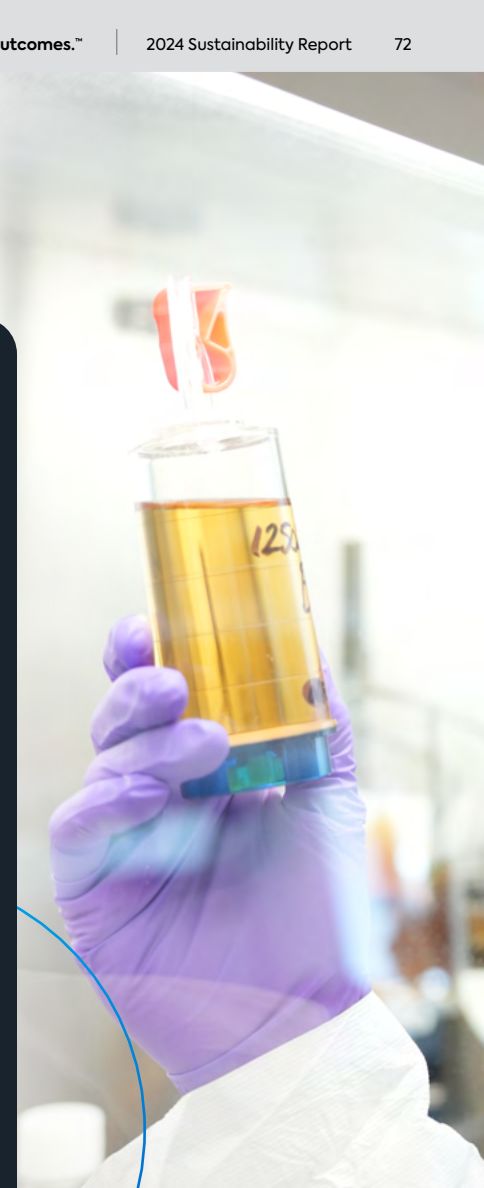
- Community engagement
- Greenhouse gas impact
- Air quality
- Energy efficiency and energy diversity
- Diversity and inclusion
- Responsible management of hazardous waste

In 2024, we assessed 100% of our portfolio of products to evaluate the revenue derived from sustainable products that promote health, reduce waste or have a positive environmental impact. Approximately 53% of Advancion's revenues were assessed to come from sustainable products as defined above.

Transparent product information and safe use guidance

We provide clear, accurate, and comprehensive information to support the safe and effective use of Advancion products. Our global Research, Development, and Applications (RD&A) teams play a key role in supporting customers across various end-use markets. Strategically located in six regional Customer Application Centers (CACs), these teams leverage advanced laboratory capabilities and technical expertise to help customers overcome formulation and application challenges.

As part of this collaborative approach, we provide detailed product information focused on optimal performance, safe usage, potential health and environmental risks, and proper handling and disposal—including packaging waste. All products are accompanied by Safety Data Sheets (SDS), which outline critical information on chemical properties, safe storage, spill response, and emergency measures. For key products, we also provide Regulatory Data Sheets (RDS), which serve as a centralized reference for global regulatory compliance and core product stewardship data.



GRI Disclosure Index

Statement of Use	Advancion Corporation has reported in accordance with the GRI Standards for the calendar and fiscal period starting January 1, 2024 and ending December 31, 2024.
GRI 1 Used	GRI 1: Foundation 2021

GRI Standard/ Other Source	Disclosure	Page(s) in this report	Omissions	
			Reason	Explanation
General Disclosures				
GRI 2: General Disclosures 2021	2-1 Organizational details	3, 4, 5, 6, 7, 8, 9, 10		
	2-2 Entities included in the organization's sustainability reporting	3		
	2-3 Reporting period, frequency and contact point	3		
	2-4 Restatements of information	3		
	2-5 External assurance	3		
	2-6 Activities, value chain and other business relationships	4, 5, 6, 7, 8, 9, 10, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27		
	2-7 Employees	39, 40, 41, 42, 43, 44, 45, 46		

GRI Standard/ Other Source	Disclosure	Page(s) in this report	Omissions	
			Reason	Explanation
General Disclosures				
GRI 2: General Disclosures 2021	2-8 Workers who are not employees	44, 48, 49, 50		
	2-9 Governance structure and composition	28, 33, 34		
	2-10 Nomination and selection of the highest governance body		Confidentiality constraints	Advancion is a privately held company. This information is considered proprietary and is not disclosed by Advancion to third parties.
	2-11 Chair of the highest governance body		Confidentiality constraints	
	2-12 Role of the highest governance body in overseeing the management of impacts	28, 29, 30, 31, 32, 33, 34, 35		

GRI Disclosure Index

GRI Standard/ Other Source	Disclosure	Page(s) in this report	Omissions	
			Reason	Explanation
General Disclosures				
GRI 2: General Disclosures 2021	2-13 Delegation of responsibility for managing impacts	33, 34		
	2-14 Role of the highest governance body in sustainability reporting	33, 34		
	2-15 Conflicts of interest		Confidentiality constraints	Advancion is a privately held company.
	2-16 Communication of critical concerns	33, 34, 47		

GRI Standard/ Other Source	Disclosure	Page(s) in this report	Omissions	
			Reason	Explanation
General Disclosures				
GRI 2: General Disclosures 2021	2-17 Collective knowledge of the highest governance body		Confidentiality constraints	Advancion is a privately held company. This information is considered proprietary and is not disclosed by Advancion to third parties.
	2-18 Evaluation of the performance of the highest governance body		Confidentiality constraints	
	2-19 Remuneration policies		Confidentiality constraints	
	2-20 Process to determine remuneration		Confidentiality constraints	
	2-21 Annual total compensation ratio		Confidentiality constraints	
	2-22 Statement on sustainable development strategy	11, 13, 14		
	2-23 Policy commitments	28, 29, 30, 31, 32, 33, 34, 35, 39, 40, 41, 42, 43, 47		

GRI Disclosure Index

GRI Standard/ Other Source	Disclosure	Page(s) in this report	Omissions	
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General Disclosures				
GRI 2: General Disclosures 2021	2-24 Embedding policy commitments	28, 29, 30, 31, 32, 33, 34, 35, 39, 40, 41, 42, 43, 47		
	2-25 Processes to remediate negative impacts	36, 43, 47		
	2-26 Mechanisms for seeking advice and raising concerns	43, 47		
	2-27 Compliance with laws and regulations	47		
	2-28 Membership associations	38		
	2-29 Approach to stakeholder engagement	33, 36		
	2-30 Collective bargaining agreements	42, 44		
Material Topics				
GRI 3: Material Topics 2021	3-1 Process to determine material topics	35, 36		
	3-2 List of material topics	35		

GRI Standard/ Other Source	Disclosure	Page(s) in this report	Omissions	
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Material Topics				
Anti-corruption				
GRI 3: Material Topics 2021	3-3 Management of material topics	43, 47		
	205-2 Communication and training about anti-corruption policies and procedures	43, 47		
	205-3 Confirmed incidents of corruption and actions taken	47		
Anti-competitive Behavior				
GRI 3: Material Topics 2021	3-3 Management of material topics	43, 47		
GRI 206: Anti- competitive Behavior 2016	206-1 Legal actions for anti- competitive behavior, anti-trust, and monopoly practices	47		

GRI Disclosure Index

GRI Standard/ Other Source	Disclosure	Page(s) in this report	Omissions	
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Material Topics				
Energy				
GRI 3: Material Topics 2021	3-3 Management of material topics	29, 30, 31, 55, 56, 57		
GRI 302: Energy 2016	302-1 Energy consumption within the organization	32, 57, 58		
	302-3 Energy intensity	32, 58		
	302-4 Reduction of energy consumption	32, 57, 58		
	302-5 Reductions in energy requirements of products and services	32, 57, 58		

GRI Standard/ Other Source	Disclosure	Page(s) in this report	Omissions	
			Reason	Explanation
Material Topics				
Water and Effluents				
GRI 3: Material Topics 2021	3-3 Management of material topics	29, 30, 31, 55, 56, 57, 59, 60		
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	59, 60, 61		
	303-2 Management of water discharge-related impacts	59, 60		
	303-3 Water withdrawal	61		
	303-4 Water discharge	61		
	303-5 Water consumption	61		

GRI Disclosure Index

GRI Standard/ Other Source	Disclosure	Page(s) in this report	Omissions	
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Material Topics				
Emissions				
GRI 3: Material Topics 2021	3-3 Management of material topics	29, 30, 31, 62, 63		
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	32, 62, 63, 64		
	305-2 Energy indirect (Scope 2) GHG emissions	32, 62, 63, 64		
	305-3 Other indirect (Scope 3) GHG emissions	63, 65		
	305-4 GHG emissions intensity	32, 55, 56, 64, 65		
	305-5 Reduction of GHG emissions	32, 55, 56, 64, 65		
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	66		

GRI Standard/ Other Source	Disclosure	Page(s) in this report	Omissions	
			Reason	Explanation
Material Topics				
Waste				
GRI 3: Material Topics 2021	3-3 Management of material topics	29, 30, 31, 67, 68		
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	31, 67, 68		
	306-2 Management of significant waste-related impacts	31, 67, 68		
	306-3 Waste generated	31, 67, 68, 69		
	306-4 Waste diverted from disposal	69		
	306-5 Waste directed to disposal	70		

GRI Disclosure Index

GRI Standard/ Other Source	Disclosure	Page(s) in this report	Omissions	
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Material Topics				
Training and Education				
GRI 3: Material Topics 2021	3-3 Management of material topics	39, 41, 49		
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	44		
	404-2 Programs for upgrading employee skills and transition assistance programs	39, 41		
	404-3 Percentage of employees receiving regular performance and career development reviews	44		
Diversity and Equal Opportunity				
GRI 3: Material Topics 2021	3-3 Management of material topics	39, 41, 42		
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	45, 46		

GRI Standard/ Other Source	Disclosure	Page(s) in this report	Omissions	
			Reason	Explanation
Material Topics				
Non-discrimination				
GRI 3: Material Topics 2021	3-3 Management of material topics	39, 43, 47		
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	47		
Freedom of Association and Collective Bargaining				
GRI 3: Material Topics 2021	3-3 Management of material topics	39, 42		
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	42		
Child Labor				
GRI 3: Material Topics 2021	3-3 Management of material topics	43, 47		
GRI 408: Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	47		

GRI Disclosure Index

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