



Imagined for Life. Enabled by Science.™

2024 Sustainability Update

Lubrizol creates extraordinary value at the intersection of science and life, delivering sustainable solutions to advance mobility, improve well-being and enhance modern life.





Advance Mobility

Lubrizol is a catalyst for sustainability in all modern transportation platforms, developing the chemistry, driving the standards and progressing efficiency.



Improve Well-Being

Lubrizol enables oral dose medicines with fewer ingredients, nutraceuticals that nourish, clean drinking water, and personal care products that improve health and wellness, and even extends the life of your favorite running shoes while shrinking their environmental footprint.



Enhance Modern Life

Lubrizol advances the world's most urgent sustainability ambitions, from towering skyscrapers and AI-enabling computer chips, to wind blades and solar panels to advanced energy storage. Welcome

As we begin our journey to Lubrizol's next 100 years, we are excited to share our 2024 Sustainability Update. Lubrizol's leadership in building a more sustainable world is rooted in our past, embedded in our present and drives our future.

2024 Lubrizol Sustainability Highlights

16% Scope 1&2 GHG emissions reduction



Waste-to-landfill reduction





facilities with zero recordable injuries and illnesses

63%

reduction in Tier 1 process safety incidents

Delivering Sustainable Solutions

We are guided by three core sustainability priorities:



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Engaging Our Teams and Communities

Message from the CSO

2024 was a year of remarkable sustainability progress.

Welcome to our 2024 Sustainability Update. While we enable new technology to advance mobility, improve well-being and enhance modern life, our science-based innovators continue to deliver inspiring breakthrough solutions using more sustainable and efficient processes.

Our progress has resulted in the release of groundbreaking sustainable innovations like Carbopol[®] BioSense polymer, a readily biodegradable rheology modifier, and Sulfrzol[™] 54, an additive that empowers the production of renewable fuels. Both solutions push the boundaries of what is possible. And we're not stopping here, we are constantly challenging ourselves to push our innovation even further and make the modern world work better.

Safety is our top priority, and we are proud of our strong 2024 safety performance. We continue to see results on our GHG and waste-to-landfill reduction targets as we enhance our efficiencies throughout the organization.

As we advance in our sustainability journey, we will maintain the Lubrizol progress our customers rely on, innovating, improving and demonstrating each day how Lubrizol creates value at the intersection of science and life.

Elizabeth Grove Chief Sustainability Officer and Vice President Public Affairs



Sustainable Solutions

Solving the sustainability challenges faced by our customers and consumers, today and into the future, is what we do best, and 2024 was no exception.

Sustainable Solutions Criteria & Target Reminder

Climate

Reduces Climate Impact

Conservation

Enhance Resource Conservation and Efficiency **Circularity** Empower Circularity

Target: 100% of new Corporate Innovation projects assessed using Sustainable Solutions Criteria in 2025









Delivering Sustainable **Solutions**



Carbopol[®] BioSense polymer: Bio based and readily biodegradable rheology modifier and sensory enhancer

As a market-driven catalyst and a leader in rheology modifiers and thickeners for personal care products, starting with our legendary Carbopol[®] polymers, Lubrizol has continuously advanced our technology to meet the changing needs of customers. Consumers are demanding high-performing, biodegradable personal care products, and Lubrizol has delivered solutions to meet these needs.

In 2024, we launched Carbopol[®] Fusion S-20 polymer, an inherently biodegradable rheology modifier that revolutionized what was possible, winning 8 awards for sustainable innovation.

And, we didn't stop there. Lubrizol's latest evolution in rheology modifiers is nothing short of groundbreaking: Carbopol[®] BioSense polymer is a bio based and readily biodegradable rheology modifier and sensory enhancer for the personal care market.

Carbopol® BioSense is responsibly sourced from Suzano's eucalyptus plantation in Brazil.

Evolution of Carbopol[®]

As a partner in progress with cellulose pulp producer, Suzano, we have combined our shared vision of innovation, performance and sustainability. Responsibly sourced from Suzano's eucalyptus plantation in Brazil, Carbopol[®] BioSense polymer is made using renewable raw materials, and a low impact manufacturing process addressing the 12 principles of Green Chemistry, delivering sustainability and synthetic-like performance.



Carbopol[®] BioSense polymer is made using renewable raw materials, and a low impact manufacturing process addressing the 12 principles of Green Chemistry.



First developed in 1958, **Carbopol® polymers** still lead the market over 60 years later.



Carbopol[®] Fusion S-20 polymer is a natural, inherently biodegradable, rheology modifier for cleansing systems.



Carbopol[®] BioSense polymer is Lubrizol's latest groundbreaking evolution in rheology modifiers. Carbopol[®] BioSense polymer is a bio based and readily biodegradable rheology modifier and sensory enhancer.



VIDEO

Watch our video to learn more about our Carbopol® **Brand Evolution**

Delivering Sustainable Solutions



Lubrizol's innovation has transformed the transportation industry for almost a century and now includes solutions that enable the use of renewable fuels. As an alternative for sectors that are more complex to electrify, such as heavy duty diesel and aviation, renewable fuels enhance the range of sustainable solutions to reduce CO2 transportation emissions. As the demand grows for alternatives like Sustainable Aviation Fuels (SAF) and renewable diesel, Lubrizol's SulfrZol[™] 54 is enabling the production of this rapidly emerging technology.

Renewable fuels are produced from resources such as plant oils, animal fats, and waste materials, significantly reducing greenhouse gas emissions compared to traditional fossil fuels. To enable the effective production of these renewable fuels, catalyst sulfiding is a key process. Lubrizol's SulfrZol™ 54 enhances the sulfiding process by offering a safer and cleaner alternative to traditional agents. By incorporating SulfrZol™ 54 into their processes, renewable fuel refineries improve their production and support the global shift towards renewable energy sources.

By utilizing renewable fuels, we can decrease our dependence on finite petroleum resources, enhance energy security and promote a circular economy. Transitioning to renewable fuels is a crucial step toward a more sustainable and resilient transportation sector.

Comparison of Life-Cycle CO2 emissions for a Class 8 Truck using Three Fuel Types





Renewable fuels are produced from resources such as plant oils, animal fats, and waste materials, significantly reducing greenhouse gas emissions compared to traditional fossil fuels.





Responsible Citizenship

Operating safely and responsibly is a core Lubrizol value.

Safety

At Lubrizol, safety is our number one priority. The safety of our team, our facilities, and our communities is paramount. We believe every Lubrizol employee is a safety champion responsible for embodying and promoting a safety mindset.

In 2024, we made significant strides toward our zero incidents goal by reinforcing our commitment to safety. This dedication is reflected in Lubrizol's core cultural value to Operate Safely & Responsibly, which aligns with and builds upon our global implementation of the American Chemistry Council's Responsible Care Program.

We are dedicated to continually improving our communication, processes, and employee training to ensure that our team consistently advances our culture of safety. Through these ongoing efforts, we maintain and enhance a safe and responsible working environment for everyone involved, ensuring Lubrizol remains a trusted and ethical industry leader.



facilities with zero lost time recordable injuries/illnesses

facilities with zero recordable injuries and illnesses



reduced Tier 1 process safety incidents by



reduced recordable injuries by

23%

reduced lost time injuries and illnesses by





72,000



Lubrizol's core cultural value to Operate Safely and Responsibly aligns with and builds upon our global implementation of the American Chemistry Council's Responsible Care Program.

Responsible Citizenship

When sustainability is aligned with strategic initiatives to improve efficiency, reduce waste and drive productivity in our facilities, it becomes a powerful dynamic for continuous improvement.

Climate

At Lubrizol, we know that our actions are having the intended positive impact when greenhouse gas (GHG) emissions decrease.

In 2024, Lubrizol:

- Reduced combined scope 1 & 2 GHG emissions by 16% over our 2018 baseline.
- Reduced waste-to-landifll by 18%.

This progress was made possible by Lubrizol's consolidation of and investment in optimizing our assets across the globe and implementing best-in-class processes. When it comes to water stewardship, we communicated to all stakeholders the results of the biennial risk assessments and are preparing to perform the next assessments. We are proud of this progress, but we know we must continue to drive improvement through operational efficiencies and the implementation of the most effective technologies.





Lubrizol's Reduction Targets:

20% reduction in combined Scope 1 & Scope 2 GHG by 2030, over 2018 baseline

2024 Progress

Compared to our 2018 baseline, Lubrizol reduced our combined Scope 1 & 2 GHG emissions by 16%



Engaged **Teams and** Communities

Lubrizol's people are the driving force behind our culture.

Our inclusive culture, grounded in our strong purpose, aligns all employees to our One Lubrizol strategy. We seek, value and apply a variety of perspectives and believe these differentiated experiences propel our work and our culture.

2024 employee engagement results:

15,000

employee volunteer hours

1,500+

employees participating

In 2024, Lubrizol launched Creating Community Chemistry, our global community engagement program. By empowering local teams and aligning our global volunteering and giving efforts with our priorities - Good Health and Well-being, Quality Education and Sustainability - we are maximizing Lubrizol's positive impact in the communities where we work and live.

Through global volunteering initiatives, including our Global Month of Impact and International Volunteers Day, in 2024 we grew employee participation by 46%, benefiting dozens of charitable partners all over the world. These two initiatives alone logged 6,500 hours of volunteer time with over 1,500 employees completing 80 projects benefitting thousands of our neighbors globally. Nearly 9,000 additional volunteer hours were logged in 2024 through team and individual volunteering in local communities.

The remarkable increase in employee volunteer participation inspired us to revise our target to 100,000 employee volunteer hours by Lubrizol's 100th anniversary in 2028. With the empowerment of local teams and a clear commitment to positively impacting our local communities, we look forward to meeting and exceeding this target when we celebrate Lubrizol's centennial.





growth in 2024 employee participation

46%

charitable organizations supported

Our target: employee volunteer hours by Lubrizol's 100th anniversary in 2028

> \$3.72 million USD donated

Ensuring that everyone in our communities has the nutritious food they reed every days













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DOWNLOAD our full 2023 Sustainability Report