

News Release

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August 3, 2022

Merck KGaA, Darmstadt, Germany and Micron join forces for more sustainable gas solutions in the semiconductor industry

- **Partnership to develop gas solutions with a low global warming potential (GWP) used in the production of semiconductors**
- **Alternative etchant gas from Merck KGaA, Darmstadt, Germany in practical testing at Micron**

Darmstadt, Germany, August 3, 2022 – Merck KGaA, Darmstadt, Germany, a leading science and technology company, and Micron Technology, Inc., an industry leader in innovative memory and storage solutions, join forces to develop gas solutions with a low global warming potential (GWP) used in the production of semiconductors. After a year of iterative collaboration, Micron is now testing an alternative low-GWP Etch gas from Merck KGaA, Darmstadt, Germany's Research & Development unit to validate its process performance to replace a traditional, high-GWP material. The goal: new, more sustainable gas solutions are to be introduced permanently into production of semiconductors in the future.

"Sustainability needs collaboration. We must not think in silos or limit ourselves merely to our corporate boundaries. The entire value chain is called upon to explore new, joint paths in order to achieve even more together," said Kai Beckmann, Member of the Executive Board of Merck KGaA, Darmstadt, Germany and CEO Electronics, adding that "Micron has set itself ambitious sustainability goals, as we have done. We are pleased to be able to contribute to their success."

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“Our new target aims at 42% emissions reduction across Micron’s global operations from 2020 levels by 2030. We take a multifaceted approach toward meeting our net-zero operational commitments. This includes investing in advanced abatement systems, prioritizing use of gases with lower global warming potential, sourcing energy-efficient equipment, and purchasing renewable instead of fossil fuel-generated energy,” said John Whitman, CVP, Operations Central Teams & Procurement at Micron. “We are glad to have an innovative partner in Merck KGaA, Darmstadt, Germany to help us achieve these goals,” he added.

Merck KGaA, Darmstadt, Germany and Micron look back on a long-standing, trusted business relationship. The test of a new gas with low global warming potential is to be just the beginning of the cooperation in the area of sustainability. Both companies are working to find new materials to replace various etching gases with high global warming potential that are used in dry etch and chamber cleaning applications. This can contribute to achieving the sustainability goals of both companies.

In May 2022, the independent [Science Based Targets initiative \(SBTi\)](#) has confirmed that Merck KGaA, Darmstadt, Germany’s climate targets corresponded to the current status of climate science. Consequently, the company is helping to limit global warming to 1.5°C, thus meeting the requirements of the Paris Agreement. Merck KGaA, Darmstadt, Germany has committed to lowering its absolute direct (Scope 1) and indirect (Scope 2) greenhouse gas emissions by 50% by 2030. The majority of these greenhouse gas emissions is stemming from process-related emissions during the production of specialty chemicals for the electronics industry. With improved processes, the company can significantly reduce those emissions in the future. At the same time Merck KGaA, Darmstadt, Germany aims to reduce its indirect emissions along the entire value chain (Scope 3) by 52% per euro value added by 2030. The baseline year is 2020. The company's progress is documented in the [sustainability report 2021](#).

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About Merck KGaA, Darmstadt, Germany

Merck KGaA, Darmstadt, Germany, a leading science and technology company, operates across healthcare, life science and electronics. Around 60,000 employees work to make a positive difference to millions of people's lives every day by creating more joyful and sustainable ways to live. From advancing gene editing technologies and discovering unique ways to treat the most challenging diseases to enabling the intelligence of devices – the company is everywhere. In 2021, Merck KGaA, Darmstadt, Germany, generated sales of € 19.7 billion in 66 countries.

The company holds the global rights to the name and trademark "Merck" internationally. The only exceptions are the United States and Canada, where the business sectors of Merck KGaA, Darmstadt, Germany operate as EMD Serono in healthcare, MilliporeSigma in life science, and EMD Electronics. Since its founding in 1668, scientific exploration and responsible entrepreneurship have been key to the company's technological and scientific advances. To this day, the founding family remains the majority owner of the publicly listed company.

About Micron Technology, Inc.

Micron is an industry leader in innovative memory and storage solutions transforming how the world uses information to enrich life *for all*. With a relentless focus on their customers, technology leadership, and manufacturing and operational excellence, Micron delivers a rich portfolio of high-performance DRAM, NAND and NOR memory and storage products through the Micron® and Crucial® brands. Every day, the innovations that their people create fuel the data economy, enabling advances in artificial intelligence and 5G applications that unleash opportunities — from the data center to the intelligent edge and across the client and mobile user experience. To learn more about Micron Technology, Inc. (Nasdaq: MU), visit [micron.com](https://www.micron.com).