

April 15, 2024
Sanyo Chemical Industries, Ltd.

Sanyo Chemical Signs MOU with Econic to Advance CO₂-Based Polyols for Carbon Neutrality

Sanyo Chemical Industries, Ltd. has signed a memorandum of understanding (MOU) with Econic Technologies Ltd, a UK-based deep-tech company focused on renewable carbon. Sanyo Chemical will assess Econic's technology for producing CO₂-based polyols for use in sustainable, high-performance polyurethanes. By focusing on product development and leveraging Econic's innovative CO₂ utilization technology, the companies aim to defossilize the value chain and enhance carbon neutrality, a key focus area for Sanyo Chemical.

Carbon recycling is a key technology that effectively utilizes CO₂ as a sustainable carbon source and is expected to be a key technology for achieving carbon neutrality.

Econic has proprietary technology that incorporates CO₂ into the structure of polyols. By utilizing Econic's catalyst and process technology, Sanyo Chemical expects to produce polyols with a 30% reduction in carbon footprint.

Furthermore, Econic's CO₂-based polyol technology can leverage existing manufacturing facilities to achieve cost reduction in the production process, enabling practical application without compromising performance and cost.

Polyols are one of two major raw materials for the production of polyurethane. Polyurethane is widely used in various fields such as automotive, furniture, mattresses, construction, and industrial applications including high-performance foams, coatings, adhesives, sealants, elastomers, and more. Reducing dependency on petroleum-based raw materials for polyurethane has a significant impact on reducing CO₂ emissions, further enhancing the sustainability of the material.

Since starting commercial production of PPG in 1960, Sanyo Chemical has developed numerous polyol products as a pioneer in alkylene oxide adducts and has the top market share in Japan. As a leading manufacturer of polyols for polyurethane in Japan, Sanyo Chemical aims to contribute to the sustainable growth of the polyurethane market by significantly boosting the performance and competitiveness of customers' polyurethane products by introducing Econic's technology for various polyols.

Sanyo Chemical will proceed with the assessment of Econic's technology for commercialization within the coming years. The company also plans to utilize this CO₂-based polyol technology beyond polyurethane, using it as a starting point for new sustainable initiatives. We consider that the introduction of CO₂-based polyol technology may contribute to accelerating the development of technologies necessary for a circular society, as part of Sanyo Chemical's efforts towards carbon-neutral solutions.

About Econic Technologies:

Econic Technologies is a UK-based deep tech company focused on renewable carbon. Its innovative catalyst and process technology allows manufacturers to produce polymers based on CO₂ instead of petrochemicals. The use of CO₂ enhances sustainability while creating more cost-effective, higher-performing end products. Econic licenses its technology to polyols and surfactants manufacturers that supply some of the world's most iconic consumer brands. Econic was founded in 2011 by Dr. Charlotte Williams at Imperial College London. The company is part of Cleantech Group's Global Cleantech 100. Its global headquarters are in Alderley Park, UK just outside of Manchester.

<https://www.econic-technologies.com/>

About Sanyo Chemical:

Sanyo Chemical established in 1949 in Kyoto, Japan, is a global manufacturer and seller of performance chemicals. Beginning as a manufacture of soap and texture agents we have since diversified our product portfolio to meet the needs of the market, Today, we feature over 3,000 different types of products and have established an international presence. Our portfolio of chemicals spans a variety of industries and types, from automotive components to daily-use electronics, as well as cosmetics and medical equipment, all with the aim of creating ore safe and environmentally friendlier offerings, improving lives and societies across the world. We aim to contribute to realize a sustainable society through our corporate activities.

<https://www.sanyo-chemical.co.jp/eng>

Contact

Public Relations Department
Corporate Planning Division

Tel : +81-75-541-4312

E-mail:pr-group@sanyo-chemical.group