

## **CORBION: LACTIC ACID SOLUTIONS FOR A MORE SUSTAINABLE FUTURE**

Corbion is the global market leader in lactic acid and its derivatives. Corbion uses its unique expertise in fermentation and other processes to deliver sustainable solutions for over 100 years. Corbion has a global production footprint in lactic acid and derivatives with production plants in Thailand, Netherlands, Spain, Brazil and the United States.

In 2024, Corbion started up its next flagship lactic acid plant in Thailand with a world-scale capacity of 125 kt/yr. This production facility runs on novel cutting-edge production technology, thereby drastically cutting waste streams and CO<sub>2</sub> emissions resulting in a truly circular production process.

Organic acids constitute an important group of chemical building blocks that can be produced from renewable resources through fermentation. Corbion uses different carbohydrate feedstocks like sugar cane, sugar beets and corn, depending on regional availability and footprint. Lactic acid is 100% biobased and readily biodegradable, and can bring multifunctional benefits in a variety of applications, such as pH regulation, demineralization, anti-microbial activity and more. Besides, it acts as a versatile building block for a wide variety of derivative chemistries, such as, but not limited to:

- Lactate ester bio-solvents: safe and sustainable alternatives to replace fossil-based traditional solvents, offering the possibility to drastically reduce carbon footprint, for instance in solvent-borne coating applications.
- Lactide: a versatile biobased building block for synthesis of resins. Corbion has developed vast capabilities in tuning material properties in designing lactide-based (co-)polymers and/or oligomers.
- Polylactic acid: Corbion and TotalEnergies have formed the JV TotalEnergies Corbion which is operating a 75 kt/yr PLA plant in Thailand.

The Corbion product portfolio is covered by an extensive Life Cycle Assessment that shows their environmental benefits in a quantitative manner. The biodegradable nature of lactic acid chemistry makes it a very suitable tool for use within the Safe and Sustainable by Design EU framework.