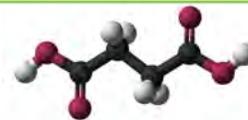


## Bio-Succinic Acid

A High Performing Green Chemical without a "Green Premium" Price



**Succinic Acid is a four-carbon molecule with a chemical structure similar to maleic anhydride (MAN), a petroleum-derived chemical widely used as a primary raw material to make products ranging from food packaging and pharmaceutical products, to detergents and plastics. The use of fossil fuels as chemical feedstocks has given rise to health and environmental concerns, which have spurred the development of more sustainable, eco-friendly processes that create chemicals from renewable resources.**

Bio-succinic acid is a greener, more environmentally friendly version of its crude-derived counterpart. Made from renewable, sustainable resources, Myriant's bio-succinic acid is identical in structure to succinic acid made from petroleum and can be directly substituted or "dropped in" to a broad range of chemical production processes, making every day consumer applications greener and more eco-friendly. With consumers desiring to live more sustainably and demanding greener product choices, current estimates project the market opportunity for bio-based succinic acid is more than \$7 billion.

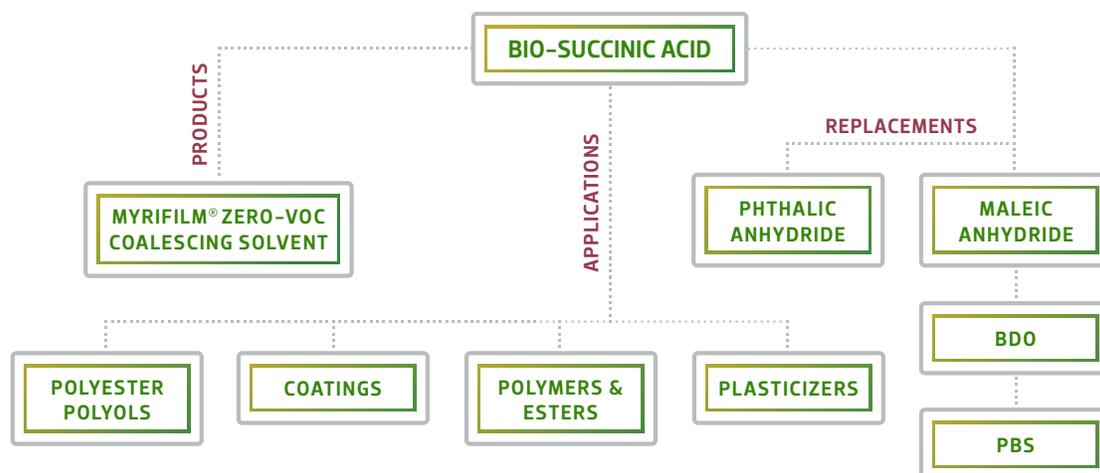
### Myriant's Unique and Proprietary Process

Myriant has commercialized a greener process for the production of succinic acid that addresses the supply constraints, cost volatility and environmental issues associated with use of crude-based feedstocks. Myriant's bio-succinic acid is produced through a proprietary technology platform designed to produce high-value biochemicals with high yield and performance. We develop biocatalysts – microorganisms with altered metabolic pathways – that grow and simultaneously produce target biochemicals from a variety of renewable, sustainable feedstocks. Further, Myriant's process is anaerobic and therefore, the process does not release CO<sub>2</sub> but rather consumes it which is less harmful to the environment. Myriant's process for producing bio-succinic acid reduces harmful greenhouse gas emissions by 94% compared to petroleum-derived succinic acid and by 93% compared to petroleum-derived adipic acid.<sup>1</sup>



1. Life Cycle Analysis of Bio-succinic acid production using the IPCC 2007 (GWP) method.

## Market Opportunity For Bio-Succinic Acid > \$7.0 billion



### Lake Providence: Myriant's Flagship Bio-Succinic Acid Commercial Facility

Myriant's flagship commercial facility in Lake Providence, LA will produce 30 million pounds of bio-succinic acid annually. Start-up activities are underway and Myriant expects customer shipments will soon commence.

To keep pace with customer demand, Myriant is planning its production expansion both domestically and across the globe.



Myriant's Lake Providence Commercial Facility for Bio-Succinic Acid

### Product Specifications

Myriant Bio-Succinic Acid	
» CAS:	110-15-6
»	Butanedioic acid
»	1,2-ethanedicarboxylic acid
» Assay	99.5 wt%
» Moisture	<0.5 wt%
» Ash	<0.025 wt%
» Color	white crystalline solid
» Pb	<2 ppm
» Packaging	25 kg poly bags, 1000 kg Super Sack

### To order samples, please email

[productinfo@myriant.com](mailto:productinfo@myriant.com)