PRESS RELEASE

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AJINOMOTO

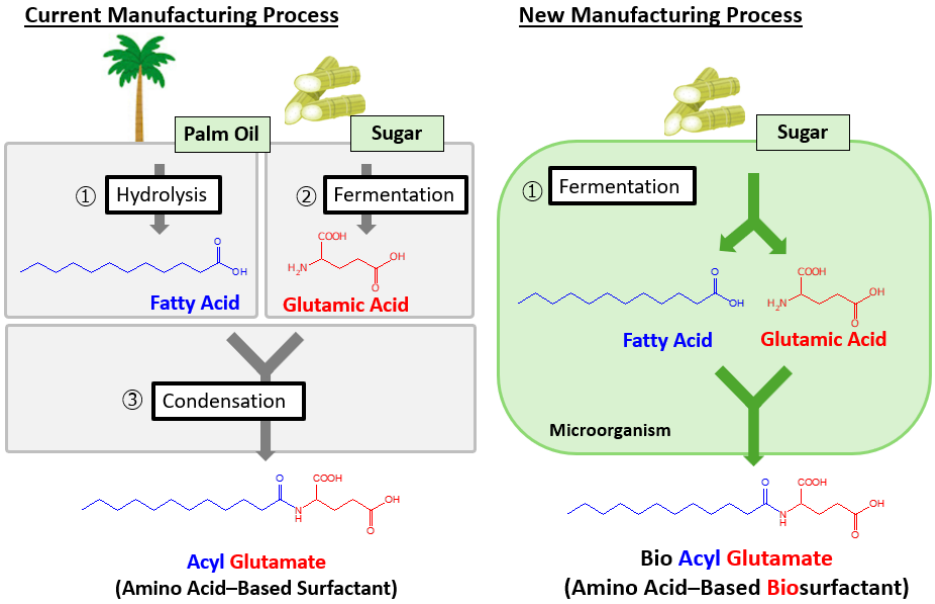
Ajinomoto Co., Inc. Develops New Manufacturing Process for Palm Oil-Free Amino Acid-Based Biosurfactant*1

Expanding Sustainable Options for Cosmetic Ingredients through Fermentation Technology

*1 Refers to “Bio Acyl Glutamate”

TOKYO, March 30, 2026 – Ajinomoto Co., Inc. (“Ajinomoto Co.”) has developed a new fermentation-based manufacturing process (patent pending), a technology using only sugars that can be stably procured worldwide as raw materials for amino acid-based surfactants, which have traditionally been produced using fatty acids derived from palm oil. This technology enables Ajinomoto Co. to provide amino acid-based biosurfactants produced by microorganisms without the use of either petroleum-derived raw materials or palm oil. With this technology, Ajinomoto Co. has resolved issues related to color and odor that had been challenges for conventional biosurfactants, and has achieved enhanced foaming performance. By leveraging environmentally conscious manufacturing technologies that utilize sustainable raw materials, Ajinomoto Co. will continue to advance the development of high-performance cosmetic ingredients and provide consumers with products that are gentle on the skin and comfortable to use.

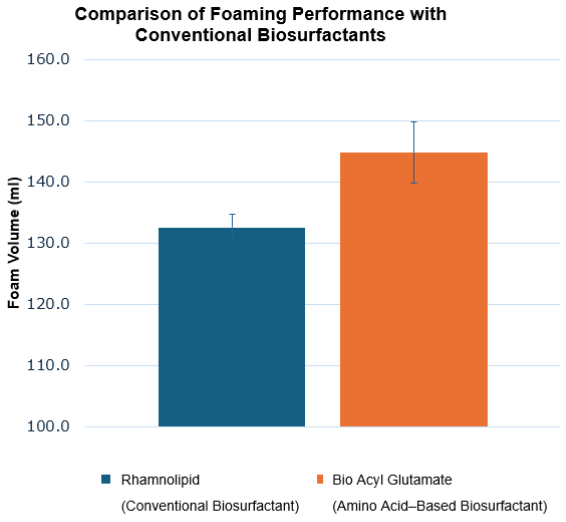
Manufacturing Process for Acyl Glutamate



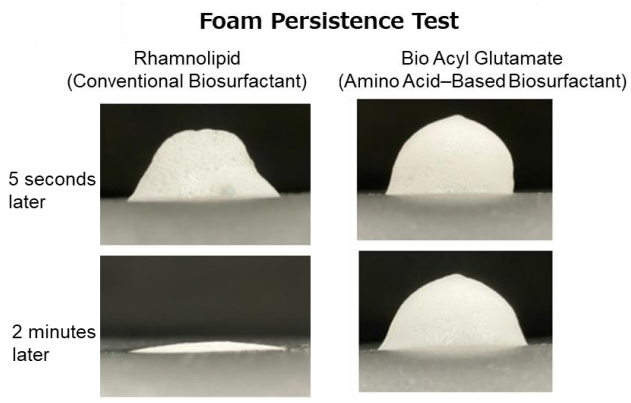
In recent years, increasing efforts toward the realization of a sustainable, environmentally conscious society have prompted changes in the raw materials used for cosmetics and detergents. In particular, palm oil is widely used around the world, yet its production has raised internationally recognized environmental and social concerns, such as tropical deforestation linked to production expansion, increased carbon dioxide emissions, and human rights issues involving plantation workers. In addition, palm oil production is geographically constrained, as it is limited to warm and rainy regions within 10 degrees of the equator. As a result, research is progressing to reduce palm oil use and to explore sustainable alternatives.*2

*2 Source: WWF-Report-Palm-Oil-Searching-for-Alternatives.pdf

Biosurfactants produced by microorganisms have attracted increasing attention because they are naturally derived, highly biodegradable, and have a low environmental impact. As a result, the market has been expanding rapidly, driven by technological innovation and cost reductions. The global biosurfactant market is currently projected to grow at an annual rate of 13% from 2021 to 2030.*3 However, conventional biosurfactants have faced challenges that have limited their use in cosmetics, including weak foaming performance, coloration, and residual odor.*4 "Bio Acyl Glutamate," produced using the newly developed fermentation-based manufacturing process, is a type of amino acid–based surfactant and represents the outcome of Ajinomoto Co.'s R&D efforts built on its "AminoScience" expertise to address market needs and technical challenges.



Equipment: Dynamic foam analyzer
Test solution: 1.5 wt% aqueous solution (diluted with hard water), pH 5.5
Foam volume measurement: 5 seconds after foam generation



Test solution: 0.5 wt% aqueous solution (diluted with hard water), pH 5.5
Imaging method: Photographed at designated time points after discharge from a pump foamer onto artificial leather

*3 Source: https://unit.aist.go.jp/ischem/ja/bs_en/index.html

*4 Source: https://www.jstage.jst.go.jp/article/seibutsukogaku/102/6/102_102.6_286/_pdf/-char/ja

With this technology, sugars are used as raw materials instead of petroleum-derived materials or palm oil, for which future supply shortages are a concern, enabling production closer to areas of consumption. This approach is also expected to contribute to reductions in greenhouse gas (GHG) emissions associated with transportation.

In terms of functionality, this technology resolves key challenges associated with conventional biosurfactants, including foaming performance, coloration, and residual odor, while retaining the skin mildness characteristic of amino acid-based surfactants. As a result, Ajinomoto Co. has succeeded in developing cosmetic ingredients that are both sustainable and functional. "Bio Acyl Glutamate" manufactured using this technology is expected to serve as a new alternative to petroleum- and palm oil-derived surfactants, with potential applications across a wide range of cosmetic products, including shampoos and facial cleansers. By reducing skin irritation while delivering natural foaming performance and a nearly colorless and odorless finish, it is expected to contribute to improvements in cosmetic quality and customer satisfaction.

Ajinomoto Co. is currently conducting demonstration tests in preparation for mass production and commercialization, while also engaging with the cosmetics industry to introduce the technology. Ajinomoto Co. plans to begin shipping prototype samples in 2026 for customer evaluation. Going forward, in addition to manufacturing that does not rely on petroleum- or palm oil-derived raw materials, Ajinomoto Co. will advance development with the aim of contributing to the reduction of GHG emissions across the entire value chain through the appropriate selection of production locations.

Through the development and provision of sustainable cosmetic ingredients that take environmental and social issues into consideration, Ajinomoto Co. aims to realize its purpose of contributing to the well-being of all human beings, our society and our planet with "AminoScience".

For details on Ajinomoto Co. and the Ajinomoto Group, visit https://www.ajinomoto.com/
For further information, please contact: HERE