

February 9, 2023

Mitsubishi Gas Chemical Company, Inc.

Mitsui Chemicals, Inc.

**Mitsubishi Gas Chemical Launches Initiatives to Manufacture and Market
Biomass Polycarbonate Products**

Mitsui Chemicals to Provide Biomass Feedstock

Mitsui Chemicals, Inc. (Mitsui Chemicals; Head Office: Minato-ku, Tokyo; President: Osamu Hashimoto) and Mitsubishi Gas Chemical Company, Inc. (MGC; Head Office: Chiyoda-ku, Tokyo; President: Masashi Fujii) jointly announced today that MGC has launched initiatives to manufacture and market biomass polycarbonate resin (PC) as part of the two companies' efforts to become carbon neutrality by 2050. Mitsui Chemicals will provide biomass-derived bisphenol A ("biomass BPA"), which is scheduled to be developed under its BePLAYER™ brand, and MGC will use this as a monomer feedstock in the manufacture of its PC lupilon™¹.

In December 2021, Mitsui Chemicals was the first company in Japan to allocate derivatives and products (made with bio-based hydrocarbons as a raw material) using the mass balance method² based on the ISCC PLUS certification system and is now selling biomass chemicals and resins. It has also begun to offer products in the biomass phenol chain, where it has traditionally been difficult to prepare biomass aromatic compounds taken directly from plant-derived raw materials. The company aims to have all seven products³ including BPA certified and on the market by March 2024. It will begin providing biomass BPA to MGC.

MGC will purchase ISCC PLUS certified biomass BPA from Mitsui Chemicals for the first time in Japan and will begin efforts to produce biomass PC at its Kashima Plant using the interface polymerization method. MGC will utilize group company Kashima Polymer's pelletized products and functional compound products and group company MGC Films's processing facilities for hard, highly transparent sheet products and film products for molding to add functionality to biomass PC. Furthermore, MGC is building an integrated supply chain for biomass PC products by marketing these products through the global sales networks of Mitsubishi Engineering-Plastics Corporation and Mitsubishi Gas Chemical Trading Co.

In addition, MGC's Kashima Plant and the MGC Group companies mentioned above are aiming to obtain ISCC PLUS certification by the end of this year. Up to now it has been challenging to procure biomass PC products for various fields including automotive, electricals and electronics, optics, OA, and semiconductors. The ISCC PLUS certification will allow for these products to be supplied widely through the mass balance method. In addition, MGC is planning to use Circular Carbon Methanol together with biomass BPA to make the entire PC framework either CO₂-derived or plant-derived. Meanwhile, overseas, MGC is planning to acquire ISCC PLUS certification at its PC material manufacturing bases, Thai Polycarbonate (based in Thailand) and MCC Process Plastics (Shanghai) (based in China).

Through these initiatives, both companies will reduce greenhouse gas (GHG) emissions throughout the supply chain and contribute to the realization of a carbon-neutral society.

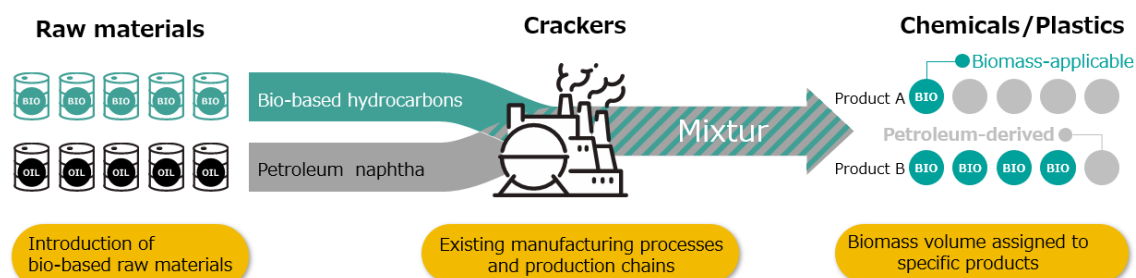
¹ *Iupilon™ polycarbonate resin*

Iupilon™ is a polycarbonate resin (PC). It has been a successful product for many years and is used in a wide range of fields including electronics, OA, machinery, optics, automotive, medical, security, and sports.

² *Mass balance method based on ISCC PLUS certification*

The mass balance method is an approach of assigning a measure of sustainability to a product when it has been manufactured using both sustainable raw materials (e.g., biomass-derived raw materials) and non-sustainable raw materials (e.g., fossil-derived raw materials). The measure is assigned according to the amount of sustainable raw material input (See the Ministry of Economy, Trade and Industry's "Bioplastic Introduction Roadmap").

The physical properties of plastics and chemical products made with biomass do not differ from their fossil-derived counterparts. The mass balance method also allows for the use of biomass in the production of materials where it has traditionally been difficult. Therefore, the mass balance method is a significant means of increasing the adoption of biomass in society and realizing a carbon neutral society.



³ Total 7 products

Certified: Phenol, acetone, α -methylstyrene, BPA; To be certified: Epoxy resin, IPA, MIBK

Enquires (Organizations below listed in alphabetical order)

Public Relations Department
 Administrative & Personnel Division
 Mitsubishi Gas Chemical Company, Inc.
 TEL.: +81-3-3283-5040

Corporate Communications Department
 Mitsui Chemicals, Inc.
 TEL.: +81-3-6253-2100