

Suntory Introduces 100% Plant-Based PET Bottle Prototypes



Orangina 100% plant-based PET bottle prototype, excluding cap and label

This high-resolution image has been posted on <https://www.suntory.com/news/index.html>

Tokyo, JAPAN, December 3, 2021 – Suntory Group today announced that, as a crucial step toward its aim to use 100% sustainable PET bottles globally by 2030 and eliminate all petroleum-based virgin plastic from its global PET supply, the company has successfully created a prototype PET bottle made from 100% plant-based materials. The prototype has been produced for the company’s iconic *Orangina* brand in Europe along with its best-selling bottled mineral water brand in Japan, *Suntory Tennensui*. This announcement marks a breakthrough after a nearly decade-long partnership with the US-based sustainable technology company Anellotech.

PET is produced using two raw materials, 70% terephthalic acid (PTA) and 30% mono ethylene glycol (MEG). Suntory’s prototype plant-based bottle is made by combining Anellotech’s new technology, a plant-based paraxylene derived from wood chips, which has been converted to plant-based PTA, and pre-existing plant-based MEG made from molasses which Suntory has been using in its *Suntory Tennensui* brand in Japan since 2013.

“We’re delighted with this achievement, as it brings us one step closer to delivering this sustainable PET bottle to the hands of our consumers,” said Tsunehiko Yokoi, Executive Officer of Suntory MONOZUKURI Expert Ltd. “The significance of this technology is that the PTA is produced from non-food biomass to avoid competition with the food chain, while MEG is also derived from non-food grade feedstock.”

This innovation is an additional step towards achieving [Suntory Group’s ambition](#) to eliminate use of all petroleum-derived virgin PET plastic bottles globally by transitioning to 100% recycled or plant-based PET bottles by 2030. The fully recyclable prototype plant-based bottle is estimated to significantly lower carbon emissions compared to petroleum derived virgin bottle.

“This achievement is the result of over ten years of thorough and painstaking development work by Anellotech’s dedicated employees, together with Suntory and other partners,” said David Sudolsky, President and CEO of Anellotech. “The competitive advantage of Anellotech’s Bio-TCat generated paraxylene is its process efficiency (it uses a single-step thermal catalytic process by going directly from biomass to aromatics (benzene, toluene and xylene)), as well as the opportunity it creates for a significant reduction in greenhouse gas emissions as compared to its identical fossil-derived paraxylene in the manufacture of PET, especially as it generates required process energy from the biomass feedstock itself.”

This technology is one of the latest investments from Suntory in the company’s long history of addressing the social and environmental impacts of containers and packaging. In 1997, Suntory established its "Guidelines for the Environmental Design of Containers and Packaging." For plastic bottles specifically, it has used its 2R+B (Reduce/Recycle + Bio) strategy to reduce the weight of containers, including labels and caps, and actively introduce recycled or plant-based materials in its plastic bottles used globally. Most significantly, it has created the lightest bottle cap, the thinnest bottle label, and the lightest PET bottle produced in Japan to date.

“Suntory has been entrenched in the work to create sustainable packaging solutions since 1997. This plant-based bottle prototype honors our historic dedication while shining a light, not only on our path to achieving our 2030 fully sustainable PET bottle goal, but also towards our ambition to net-zero greenhouse gas emissions across the entire value chain by 2050,” said Tomomi Fukumoto, COO of Sustainability Management at Suntory Holdings.

This milestone amplifies the great momentum of Suntory’s continuous work on promoting a plastic circular economy, through the development of sustainable materials, adoption of circular processes, investment to pioneer advanced technologies and promotion of behavioral change for consumers. Suntory aims to commercialize this 100% plant-based bottle as soon as possible to meet its 2030 fully sustainable PET bottle goal.



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About Suntory Group

As a global leader in the beverage industry, Suntory Group offers a uniquely diverse portfolio of products from premium spirits, beer and wine to brewed teas, bottled water, carbonated soft drinks, ready-to-drink coffee and energy drinks, along with health and wellness products. Suntory is home to award-winning Japanese whiskies *Yamazaki*, *Hibiki* and *Hakushu* as well as iconic American spirits *Jim Beam* and *Maker's Mark*. Suntory also fascinates the taste buds in Japan and the Asian market with our *Premium Malt's* beer and also owns the exceptional Japanese wine *Tomii* and the world famous *Château Lagrange*. Its brand collection also includes *Sauza Tequila*, non-alcoholic favorites *Orangina*, *Lucozade*, *Ribena*, *BOSS* coffee, *Iyemon* green tea, *Suntory Tennensui* water, *TEA+ Oolong Tea*, *V* and *BRAND'S*, as well as popular health and wellness product *Sesamin EX*.

Founded as a family-owned business in 1899 in Osaka, Japan, Suntory Group has grown into a global company operating throughout the Americas, Europe, Africa, Asia and Oceania with an annual revenue (excluding excise taxes) of \$20.4 billion in 2020. Suntory is driven by Yatte Minahare - the spirit of bold ambition - and our 40,044 employees worldwide draw upon our unique blend of Japanese artisanship and global tastes to explore new product categories and markets.

As a company that delivers blessings of water and nature to our customers, Suntory is committed to its mission to create harmony with people and nature. Always aspiring to grow for good, Suntory is devoted to giving back to society through protecting water resources, nurturing its communities and fostering the arts.

Learn more about Suntory Group, its brands, and its commitment to social responsibility at www.suntory.com, on [Facebook](#), [Twitter](#), [Instagram](#), [LinkedIn](#), and [YouTube](#).

About Anellotech

Founded in 2008, Anellotech (<http://www.anellotech.com>) is a sustainable technology company focused on commercializing the innovative production of cost-competitive renewable chemicals and fuels from non-food biomass or waste plastics. Its patented Bio-TCat™ technology is an efficient thermal catalytic process for converting biomass into benzene, toluene and xylene, which are chemically identical to their petroleum-based counterparts. The process has been extensively demonstrated with loblolly pine feedstocks at Anellotech's TCat-8® pilot plant in Silsbee, Texas. Engineering work to design the first commercial plant is underway by Anellotech and its R&D, engineering and licensing partners IFPEN and Axens.

The Bio-TCat™ platform is now being leveraged for Plas-TCat™, a development-stage process technology aiming to convert mixed waste plastics into commodity chemicals such as olefins and aromatics, the primary chemicals used to make plastic packaging and other products.