LanzaTech

Are you equipped to achieve your sustainability ambitions?

Leverage CarbonSmartTM products as drop in solutions to add value to your business while improving your carbon footprint





Background

There are 450 million tons of embedded carbon in chemicals. While energy can be de-carbonized, carbon is needed to produce chemicals that serve as the building blocks for materials, polymers, fragrances, solvents, protein, and fuels.

LanzaTech's CarbonSmart[™] process recycles carbon emissions into broad range of applications from fragrances and household cleaners, textiles, and packaging, to sustainable aviation fuels. Using a variety of waste-based feedstocks, LanzaTech uses a biological process, based on fermentation, to transform the carbon from the waste gases into products like ethanol and downstream products derived from ethanol. The technology works like a brewery, but instead of using sugars and yeast to make beer, LanzaTech uses bacteria to convert gaseous feedstocks such as carbon monoxide (CO), carbon dioxide (CO₂), syngas, methane (CH₄), or biogas into platform chemicals, such as CarbonSmart[™] Ethanol. Further conversion results in a variety of CarbonSmart[™] products ranging from textiles and laundry detergents to packaging and sustainable aviation fuels. LanzaTech has a broad portfolio of new platform products in the pipeline, including MEG, IPA, and Acetone.

LanzaTech's process for producing ethanol from captured carbon reduces greenhouse gas emissions compared to fossil-fuel-based production. For every ton of CarbonSmart[™] product made, two tons of CO₂ are removed. CarbonSmart[™] products result in an improved carbon footprint to support your sustainability ambitions. LanzaTech's technology is a scalable solution that is readily available in the market today.

Our goal is to change how the world uses carbon, enabling a new circular carbon economy where carbon is reused rather than wasted, skies and oceans are kept clean, and pollution becomes a thing of the past.

LanzaTech has established a broad range of market applications for CarbonSmartTM Ethanol.



CarbonSmartTM Ethanol for Household Cleaning and Fragrances

Mibelle, of the Migros group, and Coty have partnered with LanzaTech to produce household cleaners and fragrances that are available in stores today.





CarbonSmartTM Surfactants for Detergents

CarbonSmartTM Ethoxylates have been used in household detergents produced by Unilever in the Omo, Sunlight and Coral brands, and Mibelle in the Potz brand, that is available today in Switzerland at Migros outlets.

CarbonSmartTM PET for Packaging

CarbonSmartTM MEG to PET Resin is currently used in Mibelle's product packaging. The bottles contain up to 30% CarbonSmartTM MEG made from CarbonSmartTM Ethanol, replacing PET typically obtained from fossil resources or Bio-PET.





CarbonSmartTM PET Fibres for Textiles

CarbonSmartTM PET Fibers are currently supporting the retail fashion industry. Zara and Lululemon have partnered with LanzaTech as they focus on sustainable fashion, with two capsule collections launched by Zara for the 2021 winter season and the spring 2022 season.

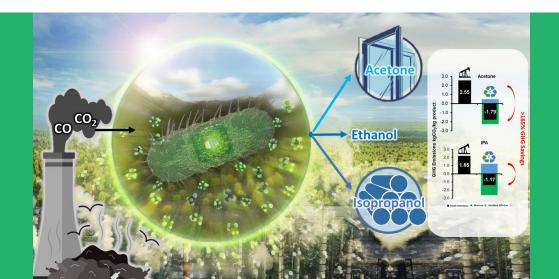
New CarbonSmart[™] Chemicals

LanzaTech continues to innovate with a focus on creating new chemicals, such as carbon negative acetone and isopropanol (IPA), made from recycled carbon. These products can be used in a range of industrial applications.

The main application for IPA is as a solvent or general cleaner to remove oil, grease, and other handling soils in hospitals, cleanrooms, and electronics or medical device manufacturing. Hospitals and clinics use IPA to sterilize medical equipment, to clean surfaces, and for skin treatments and dressings. IPA can also be used as an active ingredient in alcohol-based hand sanitizers and is one of the most common alcohols in cosmetics, where it is used as an antiseptic.

IPA can also be used as a feedstock for polypropylene (PP), where the IPA is dehydrated and polymerized to produce CarbonSmartTM PP, with a better carbon footprint than virgin PP.

Acetone is commonly used as a solvent to manufacture plastics and other industrial products. It may also be used to a limited extent in household products, including cosmetics and personal care products, where its most frequent application is in the formulation of nail polish removers. Large industrial applications of acetone are found in the production of methacrylates for use in automotive coatings and sealants, in leather, paper and textile surface treatments, in acrylate adhesives, and in latex paints, lacquers, and enamel resins. Polymerizing methacrylates to polymethylmethacrylate results in PLEXIGLAS[®] a transparent glass substitute, used in applications like automotive windscreens.



Be a Leader in CarbonSmartTM Chemicals

LanzaTech is working with companies today to simplify their supply chains and reduce their environmental impact by choosing sustainable sources of carbon. LanzaTech's technology is not only reducing emissions, it is raising awareness that drives consumer choices. CarbonSmartTM products are drop in solutions which enable companies to achieve their sustainability ambitions. Join us in creating a post pollution future and contact us today to see how we can work together to transform the carbon economy.



"We are showing the world what is possible when we rethink how we source, use, and dispose of carbon. By converting pollution to products, we can see that someday everything in our daily lives will come from recycled carbon. We are excited to be on this journey to bend the carbon curve, keep our skies blue, and create a sustainable future for all."

- Jennifer Holmgren, CEO of LanzaTech

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Join us for a post pollution future