



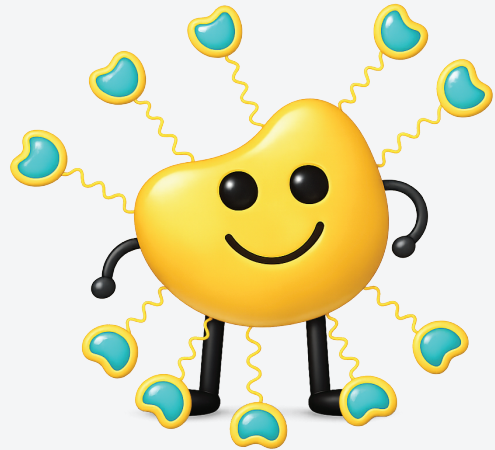
PLANETS

Safe and Sustainable by Design

SSbD

Understanding Surfactants

The science of making opposites get along.

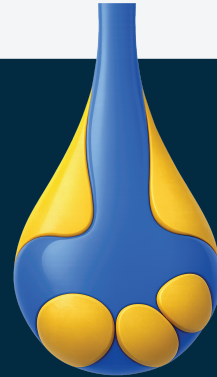


Explore
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Why Surfactants?

Surfactants keep things together that would normally separate—like oil and water. They are the connecting substance that makes mixing possible.



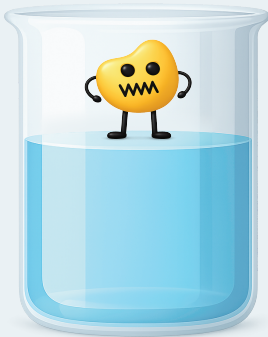
Where Are They Used?

Surfactants are all around us: in household cleaners, personal care products (cosmetics), injectable drugs, and paints, raising potential health and environmental concerns.



How Do They Work?

They make homogeneous mixtures possible.



Normally, oil and water do not mix well. They form separate phases, with the oil droplets not able to enter the water-based liquid.



Surfactants have a polar end that binds to water and a nonpolar end that binds to oil.



Adding surfactant will allow for a homogeneous liquid. It works like adding mustard to your salad dressing producing a perfect mixture!

What's the Problem?

During the manufacture of ethoxylated (polyethylene oxide-based) surfactants, trace amounts of 1,4-dioxane may be formed as an unintended by-product, which may pose potential health concerns.

Although the EU regulates the intentional use of 1,4-dioxane and requires safety assessment of unavoidable traces, we aim to eliminate even trace amounts from our products.



The PLANETS Solution

PLANETS develops new surfactants using SSbD (Safe and Sustainable by Design). These surfactants are glycerol-based formulations that cannot form dioxane and are safe by design.

