

2 minutes application break

# Emulsifiers

## Facts

**Origin** Unknown

**Dates back** 19th century

**Ingredients** Product dependent

Creating stable emulsions of immiscible substances.

## MixSing Vortex



### Design

Shear	CFD simulations confirms $>200,000 \text{ s}^{-1}$
Design	According to European legislation and CE marked
Hygiene	Complying with EHEDG guidelines
Viscosity	Up to 1,000 cP
Accessories	Table
Materials	Stainless steel: AISI 316L. All materials: EC 1935

## Insight

Emulsifiers are substances used to stabilize mixtures of two or more immiscible liquids, such as oil and water. They work by reducing the surface tension between the liquids, allowing them to remain mixed together for a longer period. Emulsifiers are used in various food and non-food products, including sauces, dressings, baked goods, and cosmetics.

The history of emulsifiers can be traced back to ancient times when people used natural substances such as egg yolks, honey, and mustard to stabilize oil and water mixtures. In the 19th century, the first synthetic emulsifiers were developed,

including lecithin, derived from soybeans, and glyceryl monostearate, derived from fats and oils.

In the early 20th century, emulsifiers were widely used in food production. One of the first and most essential emulsifiers was monoglycerides and diglycerides, which were used to improve bread's texture and shelf life. These emulsifiers were originally derived from animal fats, but today they are mostly made from vegetable oils.

In the mid-20th century, developing new emulsifiers such as polysorbates and carrageenan allowed for even greater

versatility in food production. These emulsifiers are used in various products, including ice cream, chocolate, and processed meats.

Recently, concerns have been raised about some emulsifiers' safety and health effects. Some studies have suggested that certain emulsifiers may contribute to inflammatory bowel disease and other health problems. As a result, many food manufacturers have begun to look for an alternative, natural emulsifiers such as xanthan gum and agar.