BASF
We create chemistry

Milk Fortification

An Investment in the Future

Vitamin A and vitamin D deficiencies (VAD) are considered among one of the most prevalent micronutrient deficiencies worldwide. Through BASF Food Fortification program, vitamins A and D are added to staple foods in more than 40 countries. BASF is committed to combating VAD by offering reliable vitamin A product solutions with technical expertise in formulation and application. A sufficient supply of vitamin A is an investment in the future as it contributes to a healthier society.

Why Fortify Milk?

Milk is rich in high-quality and fat-soluble vitamins. Fortification with vitamins A and D can help enhance milk's nutritional value. Milk is an excellent vehicle for essential micronutrients, including vitamins, since it is consumed across population groups, and especially by young children. Thus, milk can contribute to the reduction of health- and development-related issues that arise as a result of nutritional deficiencies.

BASF Product Solutions

To consumers, milk is offered in two forms: liquid or dried (powder). The fortification of milk can be done by using vitamins in their oily or their powder/dry forms.
The choice of fortification depends on the preferences and the availability of equipment in the dairy. The use of oily vitamins require a homogenizer, and the use of powdered vitamins require a dry mixing facility.

The right choice of product depends largely on the actual set-up in each dairy and the products to be fortified.

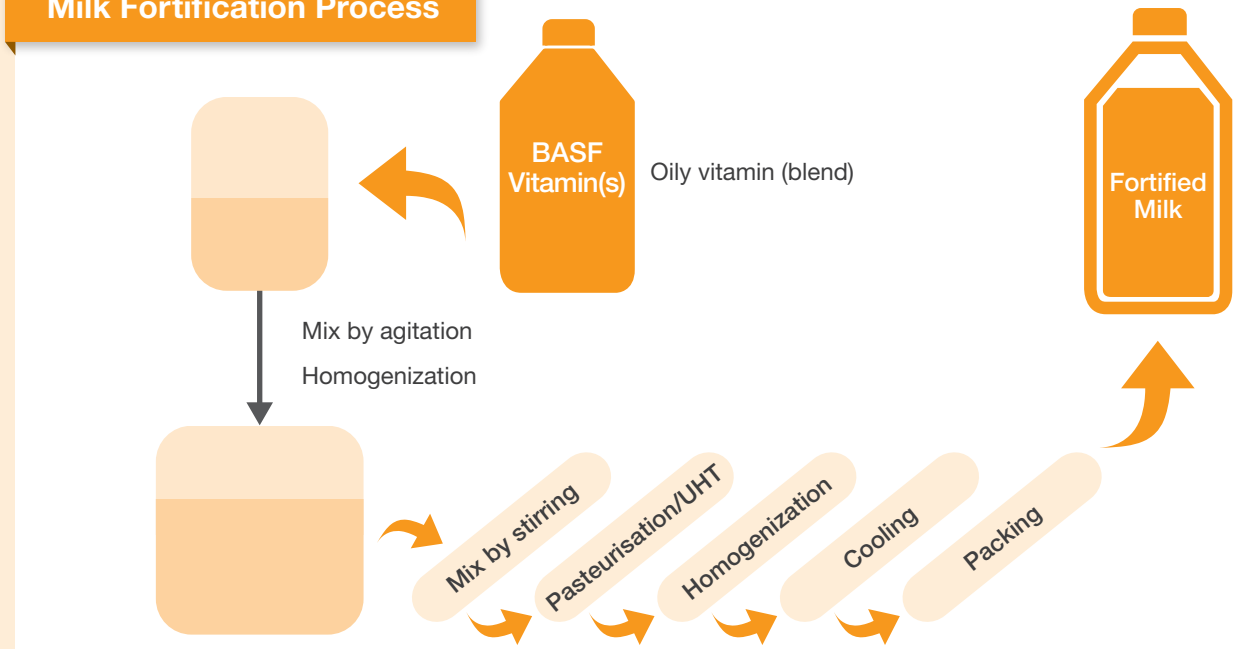
- **Oily blend 02-185 Vitamin A plus Vitamin D mix**
- **Vitamin A products, powders:** VAA 325, and oils: VA 1.0 and 1.7 mio IU/g
- **Vitamin D products, powders:** D_3 100, and oil: VD_3 1.0 mio IU/g

Milk Fortification Principle/Process

The fortification of milk can be done by using either oily or powdered vitamins. The fortification of milk powder can be done by blending in vitamin powders, or by mixing oily vitamins with liquid milk before spray drying the fortified milk.

The right choice of the suitable process depends largely on three factors: the desired end-product, the technical set-up of the production and the availability of either a homogenizer or a dry mixing facility.

Milk Fortification Process



Powder Milk Fortification Process