

Oil Fortification

An Investment in the Future

Vitamin A and D deficiencies (VAD) are considered among the most prevalent micronutrient deficiencies worldwide. Through BASF Food Fortification program, vitamins 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 Oil?



Cooking oil is a suitable food vehicle of vitamin A due to its widespread household and commercial use.

The fortification process of oil requires no special equipment as vitamin A itself is an oily substance in its natural state and is readily miscible with other oils and fats.

BASF Product Solutions

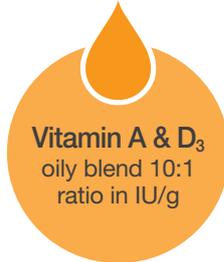
BASF is a leading vitamin A producer offering special products for the fortification of vegetable oils. BASF's oily vitamin A products include:



Vitamin A Palmitate
1.0 mio IU/g



Vitamin A Palmitate
1.7 mio IU/g



Vitamin A & D₃
oily blend 10:1
ratio in IU/g

BASF Testing Solution

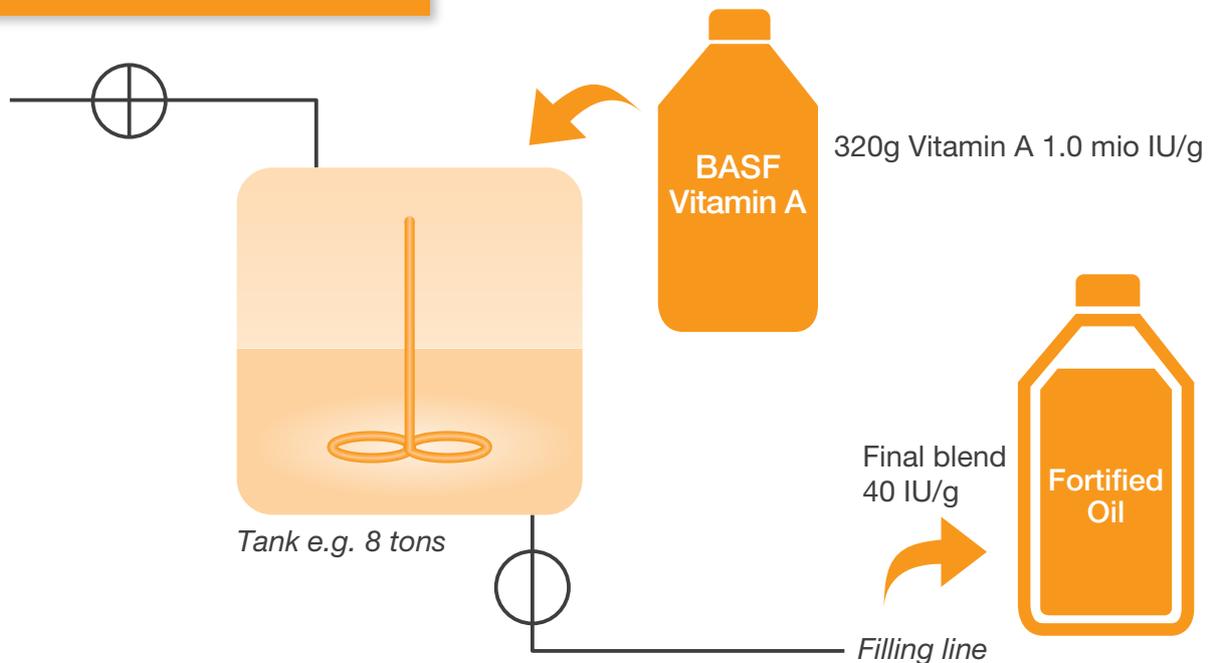
To test for vitamin A in oil, BASF has developed semi-quantitative Test Kits which can screen for the presence of vitamin A in edible oil at a very low cost.



Oil Fortification Principle

Vitamin A can be mixed into vegetable oils continuously using static mixers or in a batch process. The relation between the two components in the mixture, the cooking oil and vitamin A, is easy to control. However, it is advisable to dilute the vitamin A oil beforehand with some of the cooking oil or fat.

Oil Fortification Process



Bulk Stability of Vitamin A

At room temperatures in factory-sealed containers, vitamin A has relatively good bulk stability. Its retention characteristics when mixed with cooking oil depend on the way the end product is used, in particular, the temperature to which it is heated. Stability test results are available from BASF on request.



Many vegetable oils are rich in vitamin E, which acts as an antioxidant for vitamin A. Most of our products use vitamin E as stabilizer for vitamin A.

Stability of BASF's vitamin A palmitate (VAP) 1.0 vs. 1.7

