Lucarotin® FERM 30 SUN

Chemical names of active ingredient

Beta-carotene, provitamin A

CAS-No. 7235-40-7 **EINECS-No.** 230-636-6

PRD-No.

30660448*

* The product is kosher.

Article

50486864 4 x 5 kg aluminum bottle

Country of origin

Germany

Description

Brick-red, oily dispersion with a neutral flavor containing beta-carotene from *Blakeslea trispora* in microcrystalline form in vegetable oil.

Composition

Ingredients in descending order of weight: sunflower oil, beta-carotene from *Blakeslea trispora* (E 160a)

 $C_{40}H_{56}$ Molar mass 536.9 g/mol

Specifications

Assay min. 30%

For further information see separate document: "Standard Specification" (not for regulatory purposes) available via BASF's WorldAccount: https://worldaccount.basf.com (registered access).

Monographs

The active ingredient of Lucarotin® FERM 30 SUN meets the requirements of the current "Beta- Carotene from *Blakeslea trispora*" FCC and JECFA monograph. Furthermore the active ingredient of Lucarotin® FERM 30 SUN (E 160 (iii)) complies with the EU regulation laying down specification for food additives.



Regulations

Beta-carotene is approved for use as a food colorant and as a provitamin A source in most countries. However, specific regulations on the ingredients used in the respective countries and for the intended use have to be observed.

Stability

Lucarotin® FERM 30 SUN does not contain a stabilizer. Stored in its unopened original packaging at room temperature (max. 25 °C), the product is stable for at least 24 months. As beta-carotene may sink to the bottom of the container, the dispersions should always be stirred prior to use.

Storage/Handling

The product is sensitive to atmospheric oxygen, light, heat, and moisture. Lucarotin® FERM 30 SUN should therefore be stored under nitrogen in the tightly sealed, lightproof packaging in a cool place. Once opened, it is recommended to use the remaining contents as quickly as possible.

Applications

Food products:

Used as both yellow-orange colorant and provitamin A. Even at low concentrations, the beta-carotene dispersion has a high tinctorial strength. It is suitable for coloring as well as for standardizing the color of oils, fats, margarine, butter, processed cheese, cheese spreads, milk replacement products, ice cream, soups, sauces, fillings of baked goods, and egg products. It is added to the oily phase.

Important: Lucarotin® FERM 30 SUN should be stirred briefly prior to use.

Lucarotin® FERM 30 SUN is usually processed as stock solution in a suitable quantity of oil, prepared by careful heating to 40 °C. This stock solution is then added to the food product.

The table below provides approximate of 100% beta-carotene, which are added to 1 kg of various food products. The quantity is dependent on the required shade and should be determined in small scale tests.

Butter	14 – 16 mg/kg
Cream fillings	1 – 10 mg/kg
Egg products	2-5 mg/kg
Fats, oils	7 – 10 mg/kg
Replacement products based on vegetables oils	2-5 mg/kg
Cheese preparations	1 – 2 mg/kg
Margarine	6 – 12 mg/kg
Salad dressings	3-9 mg/kg
Processed cheese	10 – 25 mg/kg
Sauces	4 – 20 mg/kg
Ice cream	2-6 mg/kg
Soups	0.2 – 1 mg/kg

Butter:

The stock solution is heated to 45 $^{\circ}\text{C}$ and added to the cream.

• Pasta products containing egg:

A stock solution containing about 0.5% betacarotene in oil is evenly mixed with a defined quantity of flour; the colored premix is added to the flour prior to production.

Imitation cheese:

The beta-carotene stock solution in vegetable oil is heated to $50-60~^{\circ}\text{C}$ and added during production.

Margarine:

The beta-carotene dispersion is completely dissolved in the oily phase prior to emulsification.

Salad dressings:

The vegetable oil is heated to 45-50 °C before adding the beta-carotene dispersion.

· Processed cheese:

A beta-carotene stock solution is prepared in melted butter and added to the cheese mixture prior to the melting process.

• Ice cream:

The required quantity of beta-carotene is stirred into fat or oil until it is completely dissolved; the temperature of the oil should be at least 20 $^{\circ}$ C, preferably 37 – 50 $^{\circ}$ C.

· Soups:

The oil for the soup is heated and the betacarotene dispersion dissolved in it.

Note

Lucarotin® FERM 30 SUN must be handled in accordance with the Safety Data Sheet.

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