DL-alpha-Tocopherol

Chemical names of active ingredient
Vitamin E, all-rac-α-tocopherol, DL-α-tocopherol, all-rac-alpha-tocopherol, racemic 5,7,8-trimethyl-tocol

EU name
DL-α-tocopherol (E307)

CAS-No. 10191-41-0
EINECS-No. 233-466-0

PRD-No. 30054571*

* The product is kosher and halal.

Articles
50563943  5 kg plastic can
55434224  25 kg plastic bucket

Country of origin
Germany

Units
1 mg DL (= all-rac)-α-tocopherol
= 0.50 mg D (=RRR)-α-tocopherol equivalent
= 1.1 International Units (IU)

Description
Viscous, yellow to brown oil.

Solubility
Soluble in hydrocarbons, chlorinated hydrocarbons, alcohol, fats, and oils; insoluble in water.

C₂₉H₅₀O₂  Molar mass 430.7 g/mol

Specification
Assay  min. 96.0% DL (=all-rac)-α-tocopherol acetate (= 960 mg/g vitamin E)
max. 102.0% DL (=all-rac)-α-tocopherol (= 1020 mg/g vitamin E)


Unless otherwise stated, the methods of analysis can be found in the Ph. Eur.

Monographs
The product complies with the current “All-rac-α-tocopherol” Ph. Eur., “Vitamin E” USP, “All-rac-alpha-tocopherol” FCC monographs, as well as the “E307” EC directives on food additives.

Regulations
DL-alpha-Tocopherol is approved for use as an antioxidant and as a vitamin E source in most countries. However, specific regulations on the product in the respective countries and for its intended use have to be observed.
Stability
DL-alpha-Tocopherol is sensitive to oxidizing agents, turning dark when exposed to air and light.
Stored in its unopened original packaging at room temperature (max. 25 °C), the product is stable for up to 36 months.

Storage/Handling
The product should be stored tightly sealed in a dry place, protected from light at max. 25 °C. Once opened, it is recommended to flush the packaging with an inert gas and to use the remaining contents as quickly as possible.

Applications
Dietary supplements:
DL-alpha-Tocopherol is used mainly as an antioxidant in preparations containing fat.

Pharmaceutical products:
Suitable for use in pharmaceutical applications, where a European ASMF and CEP is accepted.

Food products:
DL-alpha-Tocopherol is used as an antioxidant to increase the stability of fats (oils, margarine, baking and frying fats, fish oil), fatty products (ready-made desserts containing cream, soup powders, cocoa, dietetic and frozen products, potato crisps, essences, and chewing gum), and to protect vitamin A and carotene in oils and other food products. Regular quantities are between 200 and 500 mg/kg of fat and up to 1,000 mg/kg is used in essences and chewing gum. By adding tocopherol, the shelf life of meat products sensitive to oxidation (particularly pork and turkey) can be improved.

Note
DL-alpha-Tocopherol must be handled in accordance with the Safety Data Sheet.