

Vitamin A Palmitate

1.7 million IU/g

Human Nutrition

 **BASF**
The Chemical Company

Chemical name

Retinyl palmitate, all-trans retinol palmitic acid ester

CAS No.	79-81-2
EINECS No.	201-228-5

Product numbers

Unstabilized:	10013349
Stabilized with BHT:	10068345
Stabilized with DL-alpha-tocopherol:	10065085
Unstabilized, kosher:	10063728
Stabilized with BHT, kosher:	10063715

Description

Viscous, yellow oil at room temperature. At the recommended storage temperatures, some of the vitamin A palmitate may crystallize.

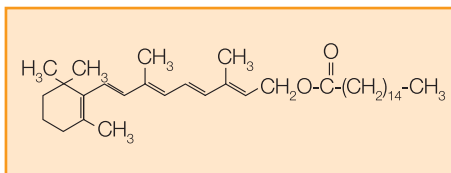
Solubility

Soluble in hydrocarbons, chlorinated hydrocarbons, ethers, fats and oils. The solvent should not contain peroxides. Insoluble in water.

Specifications

Appearance:	conforms
Assay:	min. 1.7 million IU vitamin A (= 510,000 RE) per gram
Identification:	yields a blue color with antimony trichloride in chloroform (Carr-Price test). Thin layer chromatography test
Acid value:	max. 2.0 m KOH/g
Peroxides:	max. 10 meq/kg

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



$C_{36}H_{60}O_2$ Molar mass 524.9 g/mol

Monographs

The product complies with the current "Vitamin A concentrate (oily form), synthetic" Ph.Eur. and "Vitamin A" USP monographs.

Stabilization/Stability

Vitamin A Palmitate 1.7 million IU/g is unstabilized. However, it can be supplied with approx. 10 mg t-butylhydroxytoluene (BHT, E 321) or with approx. 10 mg of DL-alpha-tocopherol (E 307) per 1.0 million IU upon request.

Stored in the unopened original packaging in a cool (8-15°C), dry place, all grades of Vitamin A Palmitate 1.7 million IU/g are stable for at least 24 months.

Standard packaging

5, 25 and 50 kg, depending on product grade. Please see appendix I for further information.

Storage

As vitamin A is sensitive to atmospheric oxygen, light, moisture and heat, it should be stored in a cool, dark place in the unopened original packaging. 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:

For preparations with a lipophilic base, e.g. soft gelatin capsules.

Pharmaceutical products:

Both, EU Drug Master File and US Drug Master File are available.

The product is particularly suitable for manufacturing aqueous solutions using solubilizing agents such as Cremophor® EL or Cremophor® RH 40 for oral administration and Solutol® HS 15 for parenteral use. The chart shows the required quantity of Cremophor® RH 40 for the solubilization of proportional quantities of vitamin A palmitate.

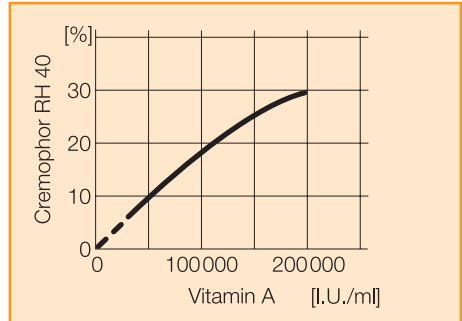
Sterilization of the final product is required for parenteral use. Further information can be found in the book "Functions and Applications of BASF Pharmaceutical Excipients".

Food products:

Used for the fortification of fatty foods such as margarine, spreads, oils, milk and dairy products. Quantities of 3-9 mg (10,000-30,000 IU) of vitamin A, calculated as retinol, are usually added per kg of margarine. The regulations governing the use of BHT must be observed.

Cosmetics:

For use in cosmetic oils, emulsions (creams, lotions, body milk, gels etc.) and other preparations, e.g. lipstick, masks. A solubilizing agent is required if the product is to be used in an aqueous/alcoholic preparation. The maximum quantities legally permitted for use in cosmetics must be observed.



Note

Prior to use or sampling, the product must be heated to 40°C in the unopened container in a water bath and homogenized.

Vitamin A palmitate must be handled in accordance with the Safety Data Sheet.

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.

May 2005