

Safety data sheet

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BASF Safety data sheet according to 91/155/EEC

Date / Revised: 07.05.2004

Version: 1.0

Product: **Dry Vitamin A-Palmitate 250 Food 20 Mesh,**

(30041045/SDS_GEN_EU/EN)

Date of print 21.06.2005

1. Substance/preparation and company identification

Dry Vitamin A-Palmitate 250 Food 20 Mesh,

Use: Vitamin

Company:

BASF Aktiengesellschaft

Fine Chemicals Division

67056 Ludwigshafen, Germany

E-mail address: basis-msds-label.me-qr@basf-ag.de

Emergency information:

Fire brigade BASF Ludwigshafen

Telephone: +49-621-60-43333

Telefax number: +49-621-60-92664

2. Composition/information on ingredients

Chemical nature

Preparation based on: retinyl palmitate

in a matrix of: carbohydrates, gum arabic, starch, DL-Alpha-Tocopherol

Hazardous ingredients

Retinol, hexadecanoate

Content (W/W): 13,5 %

CAS Number: 79-81-2

EC-Number: 201-228-5

Hazard symbol(s): T

R-phrase(s): 61, 38

The wording of the hazard symbols and R-phrases is specified in chapter 16 if dangerous ingredients are mentioned.

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3. Hazard identification

May cause harm to the unborn child.

4. First-aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

Immediately wash thoroughly with soap and water, seek medical attention.

On contact with eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Rinse mouth immediately and then drink plenty of water, seek medical attention.

Note to physician:

Treatment: Symptomatic treatment (decontamination, vital functions).

5. Fire-fighting measures

Suitable extinguishing media:

water spray, carbon dioxide, dry extinguishing media, foam

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental release measures

Personal precautions:

Avoid dust formation.

Environmental precautions:

Do not discharge into drains/surface waters/groundwater.

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Methods for cleaning up or taking up:
For small amounts: Sweep/shovel up.
For large amounts: Sweep/shovel up.
Dispose of absorbed material in accordance with regulations.

7. Handling and storage

Handling

Breathing must be protected when large quantities are decanted without local exhaust ventilation.

Protection against fire and explosion:

Avoid dust formation. Take precautionary measures against static discharges. Avoid all sources of ignition: heat, sparks, open flame. Fire extinguishers should be kept handy.

Storage

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place. Protect from air. Protect from the effects of light.

8. Exposure controls and personal protection

Components with workplace control parameters

none

Personal protective equipment

Respiratory protection:

Respiratory protection in case of vapour/aerosol release. Particle filter EN 143 Type P1, low efficiency, (solid particles of inert substances).

Hand protection:

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinylchloride (0.7 mm) and other

Supplementary note: The specifications are based on own tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374.

Eye protection:

Safety glasses with side-shields (frame goggles) (EN 166)

General safety and hygiene measures:

Under no circumstances should the product come into contact with the skin of pregnant women or be inhaled by them. Handle in accordance with good industrial hygiene and safety practice.

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9. Physical and chemical properties

Form: solid
Colour: light yellow
Odour: mild

Bulk density: approx. 600 kg/m³

Solubility in water: dispersible
(20 °C)

Information on: retinyl palmitate

Partitioning coefficient n-octanol/water (log Pow): > 6 (calculated)
(25 °C)

10. Stability and reactivity

Hazardous reactions:
Dust explosion hazard.

Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological information

Information on: retinyl palmitate

LD50/oral/rat/male/female: > 2.000 mg/kg (BASF-Test)

The product has not been tested. The statement has been derived from products of a similar structure and composition.

Information on: retinyl palmitate

Primary skin irritation/rabbit: Irritant. (BASF-Test)

Information on: retinyl palmitate

Primary irritations of the mucous membrane/rabbit: non-irritant (OECD Guideline 405)

Information on: retinyl palmitate

Animal studies do not fully exclude a skin sensitizing potential.

The product has not been tested. The statement has been derived from products of a similar structure and composition.

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Further information:

Information on: retinyl palmitate

In the majority of tests performed (microorganisms) a mutagenic effect was not found. A mutagenic effect was also not observed in in-vivo assays.

Literature data.

Information on: retinyl palmitate

Results from a number of long-term carcinogenity studies and short-term tests are available. Taking into account all of the information, there is no indication that the substance itself is carcinogenic.

Literature data.

Information on: retinyl palmitate

In animal studies the substance showed a developmental toxic/teratogenic effect.

Literature data.

12. Ecological information

Ecotoxicity

Information on: retinyl palmitate

Toxicity to fish:

DIN 38412 Part 15 static

Leuciscus idus/LC50 (96 h): > 100 mg/l

The details of the toxic effect relate to the nominal concentration. The product has not been tested. The statement has been derived from products of a similar structure and composition.

Information on: retinyl palmitate

Aquatic invertebrates:

Directive 79/831/EEC static

Daphnia magna/EC50 (48 h): 35,34 mg/l

The details of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.

Information on: retinyl palmitate

Aquatic plants:

DIN 38412 Part 9 static

Scenedesmus subspicatus/EC50 (72 h): 25,57 mg/l

The details of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.

Information on: retinyl palmitate

Microorganisms/Effect on activated sludge:

DIN 38412 Part 27 (draft) aquatic

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Pseudomonas putida/EC10 (30 min): > 10.000 mg/l

The details of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.

DIN/EN/ISO 8192-OECD 209-88/302/EEC, P. C aerobic activated sludge, domestic/EC20 (30 min): > 1.000 mg/l

Information on: retinyl palmitate

Assessment of aquatic toxicity:

Acutely harmful for aquatic organisms.

The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Persistence and degradability

Elimination information

Information on: retinyl palmitate

Test method: OECD Guideline 301 F (aerobic), activated sludge, domestic

Method of analysis: BOD of the ThOD

Degree of elimination: 50 - 60 % (28 d)

Assessment: No data available concerning biodegradation.

Information on: retinyl palmitate

Assessment: Not easily biodegradable (by OECD criteria). Moderately/partially biodegradable.

Bioaccumulation potential

Information on: retinyl palmitate

Accumulation in organisms is expected.

13. Disposal considerations

Observe national and local legal requirements.

14. Transport information

Not classified as hazardous under transport regulations (ADR RID ADNR IMDG/GGVSee ICAO/IATA)

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15. Regulatory information

Regulations of the European union (Labelling) / National legislation/Regulations

Hazard symbol(s)

T Toxic.

R-phrase(s)

R61 May cause harm to the unborn child.

S-phrase(s)

S53 Avoid exposure - obtain special instructions before use.

Hazard determinant component(s) for labelling: retinyl palmitate

Other regulations

Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances

16. Other information

Full text of hazard symbols and R-phrases if mentioned as hazardous components in chapter 2:

T	Toxic.
61	May cause harm to the unborn child.
38	Irritating to skin.

Vertical lines in the left hand margin indicate an amendment from the previous version.

The information contained herein is based on the present state of our knowledge and does not therefore guarantee certain properties. Recipients of our product must take responsibility for observing existing laws and regulations.