

Safety data sheet

Dry Vitamin A-Palmitate 500

Revision date : 2006/06/26
Version: 1.0

Page: 1/7
(30041047/MDS_GEN_US/EN)

1. Substance/preparation and company identification

Company

BASF CORPORATION
100 Campus Drive
Florham Park, NJ 07932

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP

2. Composition/information on ingredients

| <u>CAS Number</u> | <u>Content (W/W)</u> | <u>Chemical name</u> |
|-------------------|----------------------|----------------------|
| 79-81-2 | 20.0 - 40.0 % | Vitamin A palmitate |
| 57-50-1 | 15.0 - 30.0 % | Sucrose |
| 9005-25-8 | 15.0 - 30.0 % | Corn starch |
| 9000-70-8 | 15.0 - 30.0 % | Gelatin |
| 7732-18-5 | 1.0 - 5.0 % | Water |
| 128-37-0 | 1.0 - 5.0 % | BHT |

3. Hazard identification

Emergency overview

WARNING: MAY BE HARMFUL IF SWALLOWED.
CAUSES SKIN IRRITATION.
INGESTION MAY CAUSE GASTRIC DISTURBANCES.
PROLONGED OR REPEATED CONTACT MAY RESULT IN DERMATITIS.
Contains a suspect teratogen.
Avoid contact with the skin, eyes and clothing.
Avoid inhalation of dusts.
Use with local exhaust ventilation.
Wear a NIOSH-certified (or equivalent) particulate respirator.
Wear NIOSH-certified chemical goggles.
Wear chemical resistant protective gloves.
Wear protective clothing.
Eye wash fountains and safety showers must be easily accessible.

Potential health effects

Primary routes of exposure

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Acute toxicity:

Information on: *Vitamin A palmitate*
Virtually nontoxic after a single ingestion.

Safety data sheet

Dry Vitamin A-Palmitate 500

Revision date : 2006/06/26
Version: 1.0

Page: 2/7
(30041047/MDS_GEN_US/EN)

Irritation:

Information on: Vitamin A palmitate
Irritating to skin. Not irritating to the eyes.

Sensitization:

Information on: Vitamin A 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.
abgeleitet von Retinol

4. First-aid measures

General advice:

Remove contaminated clothing.

If inhaled:

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

If on skin:

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

If in eyes:

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

If swallowed:

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

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

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

NFPA Hazard codes:

Health : 2 Fire: 1 Reactivity: 0 Special:

6. Accidental release measures

Personal precautions:

Avoid dust formation.

Environmental precautions:

Do not discharge into drains/surface waters/groundwater.

Safety data sheet

Dry Vitamin A-Palmitate 500

Revision date : 2006/06/26

Version: 1.0

Page: 3/7

(30041047/MDS_GEN_US/EN)

Cleanup:

Dispose of absorbed material in accordance with regulations.

For small amounts: Sweep/shovel up.

For large amounts: Sweep/shovel up.

For residues: Sweep/shovel up.

7. Handling and storage

Handling

General advice:

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

Protection against fire and explosion:

Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

Storage

General advice:

Keep container tightly closed and dry; store in a cool place. Protect from air. Protect from the effects of light.

Temperature tolerance

Protect from temperatures above: 60 °C

Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

8. Exposure controls and personal protection

Components with workplace control parameters

| | | |
|-------------|-------|--|
| Sucrose | OSHA | PEL 5 mg/m3 Respirable fraction ; PEL 15 mg/m3 Total dust ; |
| | ACGIH | TWA value 10 mg/m3 ; |
| Corn starch | OSHA | PEL 5 mg/m3 Respirable fraction ; PEL 15 mg/m3 Total dust ; |
| | ACGIH | TWA value 10 mg/m3 ; |
| BHT | ACGIH | TWA value 2 mg/m3 Inhalable fraction and vapor ; |

Advice on system design:

Provide local exhaust ventilation to control dust.

Personal protective equipment

Respiratory protection:

Wear a NIOSH-certified (or equivalent) particulate respirator.

Hand protection:

Consult with glove manufacturer for testing data., Wear chemical resistant protective gloves.

Eye protection:

Tightly fitting safety goggles (chemical goggles).

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

Safety data sheet

Dry Vitamin A-Palmitate 500

Revision date : 2006/06/26

Page: 4/7

Version: 1.0

(30041047/MDS_GEN_US/EN)

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.

9. Physical and chemical properties

| | |
|---|-------------------------------|
| Form: | free flowing fine granules |
| Odour: | mild |
| Colour: | light yellow |
| Bulk density: | approx. 600 kg/m ³ |
| <i>Information on: Vitamin A palmitate</i> | |
| Partitioning coefficient n-octanol/water (log Pow): | > 6 (25 °C) (calculated) |
| ----- | |
| Solubility in water: | (35 - 40 °C) emulsifiable |

10. Stability and reactivity

Conditions to avoid:

>60 Temperature: > 60 degrees Celsius

Disregard of the conditions mentioned may result in undesirable decomposition reactions.

Hazardous reactions:

Dust explosion hazard.

Decomposition products:

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

11. Toxicological information

Oral:

Information on: Vitamin A palmitate

LD50/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.

Skin irritation:

Information on: Vitamin A palmitate

rabbit: Irritant. (BASF-Test)

Eye irritation :

Information on: Vitamin A palmitate

rabbit: non-irritant (OECD Guideline 405)

Genetic toxicity:

Information on: Vitamin A 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.

Safety data sheet

Dry Vitamin A-Palmitate 500

Revision date : 2006/06/26
Version: 1.0

Page: 5/7
(30041047/MDS_GEN_US/EN)

Developmental toxicity/teratogenicity:

Information on: Vitamin A palmitate

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

Literature data.

12. Ecological information

Information on: Vitamin A 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)

Evaluation: Not readily biodegradable (by OECD criteria).
Moderately/partially biodegradable.

Information on: Vitamin A palmitate

Accumulation in organisms is expected.

Information on: Vitamin A palmitate

Acute and prolonged toxicity to fish:

DIN 38412 Part 15 static

golden orfe/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: Vitamin A palmitate

Acute toxicity to 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: Vitamin A palmitate

Toxicity to aquatic plants:

DIN 38412 Part 9 static

green algae/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: Vitamin A palmitate

Toxicity to microorganisms:

DIN 38412 Part 27 (draft) aquatic

bacterium/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

13. Disposal considerations

Waste disposal of substance:

Do not discharge into waterways or sewer systems without proper authorization.

Dispose of in accordance with national, state and local regulations.

Safety data sheet

Dry Vitamin A-Palmitate 500

Revision date : 2006/06/26
Version: 1.0

Page: 6/7
(30041047/MDS_GEN_US/EN)

14. Transport information

Land transport *USDOT*

Not classified as a dangerous good under transport regulations

Sea transport *IMDG*

Not classified as a dangerous good under transport regulations

Air transport *IATA/ICAO*

Not classified as a dangerous good under transport regulations

15. Regulatory information

Federal Regulations

Registration status:

released / listed

TSCA, US

in progress

OSHA hazard category:

Chronic target organ effects reported, ACGIH TLV established

SARA hazard categories (EPCRA 311/312): Acute, Chronic

State regulations

State RTK

CAS Number

57-50-1

9005-25-8

128-37-0

Chemical name

Sucrose

Corn starch

BHT

State RTK

MA, PA

MA, PA

MA, NJ, PA

16. Other information

HMIS III rating

Health: 2

Flammability: 1

Physical hazard: 0

HMIS uses a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates high hazard.

Local contact information

prod_reg@basf.com

Safety data sheet

Dry Vitamin A-Palmitate 500

Revision date : 2006/06/26

Page: 7/7

Version: 1.0

(30041047/MDS_GEN_US/EN)

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