

Safety Data Sheet Vitamin A-Propionate 2.5 Mio IU/G stabilized with BHT

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1. Identification

Product identifier used on the label

Vitamin A-Propionate 2.5 Mio IU/G stabilized with BHT

Recommended use of the chemical and restriction on use

Recommended use*: feed additive(s)

Unsuitable for use: Not intended for sale to or use by the general public.

Details of the supplier of the safety data sheet

Company:

BASF de Costa Rica S.A. Building Epic Corporate Center, First Floor, Trejos Montealegre, Escazu San Jose, COSTA RICA

Telephone: +506 2201-1990

Emergency telephone number

24 Hour Emergency Response Information

CHEMTREC 1-703-527-3887

Centro Nacional de Control de Intoxicaciones: (506 2223-1028/222-0122/911)

Other means of identification

Synonyms: Preparation based on: Retinyl propionate stabilized with: 2,6-di-tert-

Butyl-p-cresol

2. Hazards Identification

According to Executive Decree No. 40457-S

Classification of the product

Repr. 1B (unborn child) Reproductive toxicity

Aquatic Acute 3 Hazardous to the aquatic environment - acute Aquatic Chronic 3 Hazardous to the aquatic environment - chronic

^{*} The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

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Label elements

Pictogram:



Signal Word:

Danger

Hazard Statement:

H360 May damage the unborn child.

H402 Harmful to aquatic life.

H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280 Wear protective gloves, protective clothing and eye protection or face

protection.

P273 Avoid release to the environment.
P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and

understood.

Precautionary Statements (Response):

P308 + P313 IF exposed or concerned: Get medical attention.

Precautionary Statements (Storage): P405 Store locked up.

Precautionary Statements (Disposal):

P501 Dispose of contents/container in accordance with local regulations.

Hazards not otherwise classified

When finely distributed, self-ignition is possible. High risk of slipping due to leakage/spillage of product.

3. Composition / Information on Ingredients

According to Executive Decree No. 40457-S

Vitamin A Propionate

CAS Number: 7069-42-3 Content (W/W): 80.0 - 100.0% Synonym: No data available.

BHT

CAS Number: 128-37-0 Content (W/W): 1.0 - 5.0%

Synonym: 2,6-Bis(1,1-dimethylethyl)-4-methylphenol; BHT, Butylated

hydroxytoluene, 2,6-Di-tert-butyl-p-cresol

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The actual concentration is withheld as a trade secret.

4. First-Aid Measures

Description of first aid measures

General advice:

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately 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:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: No applicable information available.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no

known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:

water spray, foam, dry powder, carbon dioxide

Unsuitable extinguishing media for safety reasons: water jet

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

harmful vapours, carbon oxides

The substances/groups of substances mentioned can be released in case of fire. Generation of fumes/fog.

Advice for fire-fighters

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Protective equipment for fire-fighting:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Cool endangered containers with water-spray.

6. Accidental release measures

Further accidental release measures:

High risk of slipping due to leakage/spillage of product. Soiled textiles/cleaning rags made of natural fibres (e.g. of pure wool or of pure cotton) are capable of ignition and should not be used and/or must be desposed of in a safe manner.

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Information regarding personal protective measures, see section 8. Ensure adequate ventilation. Do not breathe vapour/spray. Avoid contact with the skin, eyes and clothing.

Environmental precautions

Do not discharge into drains/surface waters/groundwater. Inform authorities in the event of product spillage to water courses or sewage systems.

Methods and material for containment and cleaning up

For small amounts: Pick up with suitable absorbent material. Do not use saw-dust or other combustible substances as an absorbant during cleanup. After taking up material in containers, cover immediately with water layer.

For large amounts: Dike spillage. Pump off product.

Dispose of absorbed material in accordance with regulations. Mop up spills with non-flammable adsorbents (e.g. vermiculite, spill mats). Soiled textiles / cleaning rags / adsorbents and Silica are capable of self ignition and should be wetted with water and must be disposed of in a safe manner.

7. Handling and Storage

Precautions for safe handling

Ensure thorough ventilation of stores and work areas. Wear suitable protective clothing and eye/face protection. Avoid aerosol formation. Avoid contact with the skin, eyes and clothing. Keep container tightly sealed. Ensure that there is no crystallized product in the container before use. Processing machines must be fitted with local exhaust ventilation.

Protection against fire and explosion:

Risk of self-ignition when a large surface area is produced due to fine dispersion. Soiled textiles / cleaning rags / adsorbents and Silica are capable of self ignition and should be wetted with water and must be disposed of in a safe manner. Take precautionary measures against static discharges. Avoid all sources of ignition: heat, sparks, open flame.

Conditions for safe storage, including any incompatibilities

Segregate from oxidants.

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. Keep under nitrogen.

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8. Exposure Controls/Personal Protection

Components with occupational exposure limits

BHT OEL, CR: TWA value 2 mg/m3 Inhalable fraction and

vapor;

Personal protective equipment

Respiratory protection:

Respiratory protection in case of vapour/aerosol release. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.

Hand protection:

Chemical resistant protective gloves

Eye protection:

Safety glasses with side-shields.

Body protection:

Body protection must be chosen based on level of activity and exposure.

General safety and hygiene measures:

Females in early pregnancy must never be exposed to the substance. Under no circumstances should the product come into contact with the skin of pregnant women or be inhaled by them. Avoid contact with skin. Wearing of closed work clothing is required additionally to the stated personal protection equipment. Handle in accordance with good industrial hygiene and safety practice. Wash soiled clothing immediately. No eating, drinking, smoking or tobacco use at the place of work.

9. Physical and Chemical Properties

Physical state: liquid
Form: liquid
Odour: nutty

Odour threshold: Not determined due to potential health hazard by inhalation.

Colour: yellow

pH value: substance/mixture is non-soluble (in

water)

Melting point: < 20 °C

Freezing point:

Boiling point:

No data available.

The substance / product

decomposes therefore not

determined.

Sublimation point: No applicable information available.

Flash point: 161.0 °C (ISO 2719)

Flammability: not readily ignited

Lower explosion limit: For liquids not relevant for

classification and labelling.

Upper explosion limit: For liquids not relevant for

classification and labelling.

Autoignition: 291 °C (DIN EN 14522)

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SADT: > 75 °C

Heat accumulation / Dewar 500 ml (SADT, UN-Test H.4,

28.4.4)

Vapour pressure: < 1 hPa (20 °C)

Density: 0.94 g/cm3 (20 °C)

Relative vapour density: > 1

Heavier than air.

Partitioning coefficient n- not applicable for mixtures

octanol/water (log Pow):

Self-ignition 291 °C (Directive

temperature: 92/69/EEC, A.15)

Thermal decomposition: >= 165 °C (DSC (DIN 51007))

Viscosity, dynamic: No data available. Viscosity, kinematic: > 22.6 mm2/s Solubility in water: sparingly soluble

Solubility (quantitative): No applicable information available.

Solubility (qualitative): soluble

solvent(s): organic solvents,

Molecular weight: No data available.

Particle characteristics

No applicable information available.

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:

Corrosive effects to metal are not anticipated.

Oxidizing properties: not fire-propagating

Formation of Remarks: Forms no flammable gases in the

flammable gases: presence of water.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

Self-ignition is possible when finely distributed on flammable surfaces in the presence of air.

Conditions to avoid

Avoid electro-static discharge. Avoid all sources of ignition: heat, sparks, open flame.

Incompatible materials

oxidizing agents

Hazardous decomposition products

Decomposition products:

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

Thermal decomposition: >= 165 °C (DSC (DIN 51007))

11. Toxicological information

Primary routes of exposure

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

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Of low toxicity after single ingestion.

Oral

Information on: Vitamin A Propionate

Type of value: LD50 Species: rat (male/female)

Value: > 2,000 mg/kg (BASF-Test)

No mortality was observed.

Information on: BHT Type of value: LD50 Species: rat (male/female)

Value: > 5,000 mg/kg (OECD Guideline 401)

Inhalation

No data available.

Dermal

No data available.

Assessment other acute effects

Assessment of STOT single:

Based on available data, the classification criteria are not met.

<u>Skin</u>

No data available.

Eye

No data available.

Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Information on: Vitamin A Propionate Guinea pig maximization test

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Species: guinea pig Result: Non-sensitizing. Method: OECD Guideline 406

Information on: BHT

Guinea pig maximization test

Species: guinea pig Result: Non-sensitizing.

Method: similar to OECD guideline 406

Aspiration Hazard No data available.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: Repeated exposure to large quantities may affect certain organs.

Information on: Vitamin A Propionate

Assessment of repeated dose toxicity: Repeated exposure to large quantities may affect certain organs.

Information on: BHT

Assessment of repeated dose toxicity: The substance may cause damage to the liver after repeated ingestion of high doses, as shown in animal studies.

Repeated exposure may cause adverse thyroid effects as indicated in animal studies. Prolonged and repeated exposure may cause lung damage. May cause liver and kidney damage.

Genetic toxicity

Assessment of mutagenicity: Based on available data, the classification criteria are not met.

Information on: Vitamin A Propionate

Assessment of mutagenicity: In the majority of tests performed (bacteria/microorganisms/cell cultures) a mutagenic effect was not found. A mutagenic effect was also not observed in in-vivo assays. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Carcinogenicity

Assessment of carcinogenicity: Based on available data, the classification criteria are not met.

Information on: Vitamin A Propionate

Assessment of carcinogenicity: No reliable data was available concerning carcinogenic activity.

Information on: BHT

Assessment of carcinogenicity: The substance caused cancer in animal studies. The International Agency for Research on Cancer (IARC) has classified this substance as group 3, not classifiable as to its carcinogenicity to humans.

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Reproductive toxicity

Assessment of reproduction toxicity: The substance caused malformations/developmental toxicity in laboratory animals.

Teratogenicity

Assessment of teratogenicity: The substance caused malformations/developmental toxicity in laboratory animals. May cause harm to the unborn child.

Information on: Vitamin A Propionate

Assessment of teratogenicity: May cause harm to the unborn child. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Other Information

The product has not been tested. The statement has been derived from the properties of the individual components.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Harmful to aquatic life with long lasting effects.

Toxicity to fish

Information on: BHT

LC0 (96 h) >= 0.57 mg/l, Brachydanio rerio (OECD 203; ISO 7346; 84/449/EWG, C.1, semistatic) The statement of the toxic effect relates to the analytically determined concentration. Limit concentration test only (LIMIT test).

Aquatic invertebrates

Information on: BHT

EC0 (48 h) 0.48 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

The statement of the toxic effect relates to the analytically determined concentration.

Information on: Vitamin A Propionate

EC50 (48 h) > 100 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

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

Aquatic plants

Information on: BHT

EC50 (72 h) > 0.40 mg/l (growth rate), Scenedesmus subspicatus (Guideline 92/69/EEC, C.3, static) The statement of the toxic effect relates to the analytically determined concentration.

Chronic toxicity to aquatic invertebrates

Information on: BHT

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No observed effect concentration (21 d) 0.316 mg/l, Daphnia magna (OECD Guideline 202, part 2,

The details of the toxic effect relate to the nominal concentration.

Assessment of terrestrial toxicity

No data available.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

Information on: BHT

DIN EN ISO 8192-OECD 209-88/302/EEC,P. C aerobic

activated sludge/EC0 (3 h): 1,000 mg/l

Information on: Vitamin A Propionate

OECD Guideline 209 aerobic

activated sludge, domestic/EC20 (3 h): > 1,000 mg/l

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

Assessment biodegradation and elimination (H2O)

Not readily biodegradable (by OECD criteria). Poorly biodegradable.

Assessment biodegradation and elimination (H2O)

Information on: Vitamin A Propionate

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

Information on: BHT

Not readily biodegradable (by OECD criteria). Poorly biodegradable.

Bioaccumulative potential

Assessment bioaccumulation potential

The product contains components with potential for bioaccumulation

Assessment bioaccumulation potential

Information on: Vitamin A Propionate

Significant accumulation in organisms is not to be expected.

Information on: BHT

May be accumulated in organisms.

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Mobility in soil

Assessment transport between environmental compartments

Adsorption to solid soil phase is expected.

Information on: Vitamin A Propionate

No data available.

Adsorption to solid soil phase is expected.

Information on: BHT

The substance will not evaporate into the atmosphere from the water surface.

Adsorption to solid soil phase is expected.

Additional information

Add. remarks environm. fate & pathway:

The product has not been tested. The statements on environmental fate and pathway have been derived from the properties of the individual components.

Other ecotoxicological advice:

The product has not been tested. The statements on ecotoxicology have been derived from the properties of the individual components.

13. Disposal considerations

Waste disposal of substance:

Observe national and local legal requirements.

Container disposal:

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

14. Transport Information

Land transport

TDG

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

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Not applicable

NFPA Hazard codes:

Health: 1 Fire: 1 Reactivity: 0 Special:

16. Other Information

SDS Prepared by:

BASF NA Product Regulations SDS Prepared on: 2025/08/05

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

This information is considered accurate but is not exhaustive and shall only be used as a guideline based on current knowledge of the chemical substance or mixture. Safety precautions suitable for the product must be applied.

Any other intended applications should be discussed with the manufacturer. Corresponding occupational protection measurements must be followed.

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END OF DATA SHEET