

Revision date: 2025/08/07 Page: 1/13 Version: 5.0 (30041042/SDS GEN MX/EN)

#### 1. Identification

#### Product identifier used on the label

## Vitamin A-Palmitate 1.6 Mio IU/G Feed

## 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 Mexicana S.A. de C.V. Av. Insurgentes Sur 975 Col. CD. De Los Deportes, C.P. 03710 Ciudad de México MÉXICO

Telephone: +52 55 5325 2600

## **Emergency telephone number**

24 Hour Emergency Response Information

SETIQ: 1800-00-214-(Rep. Mexicana) or 55-59-15-88 (CDMX)

Telephone: +1-800-849-5204 or +1-833-229-1000

Other means of identification

Synonyms: Preparation based on: Retinyl palmitate dissolved in Sunflower oil

stabilized with: 2,6-di-tert-Butyl-p-cresol

## 2. Hazards Identification

## **According to Regulation NOM-018-STPS-2015**

## 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

<sup>\*</sup> 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.

## Vitamin A-Palmitate 1.6 Mio IU/G Feed

Revision date: 2025/08/07 Page: 2/13 Version: 5.0 (30041042/SDS GEN MX/EN)

#### 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 on porose material, self-ignition is possible. High risk of slipping due to leakage/spillage of product.

## 3. Composition / Information on Ingredients

## According to Regulation NOM-018-STPS-2015

Vitamin A palmitate

CAS Number: 79-81-2

Content (W/W): 80.0 - 100.0% Synonym: No data available.

Isomers of Retinyl palmitate

Content (W/W): 5.0 - 13.0% Synonym: No data available.

Sunflower oil

CAS Number: 8001-21-6

Revision date: 2025/08/07 Page: 3/13 Version: 5.0 (30041042/SDS GEN MX/EN)

Content (W/W): 3.0 - 10.0% Synonym: No data available.

**BHT** 

CAS Number: 128-37-0 Content (W/W): 0.5 - 5.0%

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

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

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 eves:

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

Information on: Vitamin A palmitate

Symptoms: Overexposure may cause:, Eye irritation, skin irritation, erythema, nausea, headache,

vomiting, dizziness, diarrhea, abdominal cramps

-----

## 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**

Revision date: 2025/08/07 Page: 4/13 Version: 5.0 (30041042/SDS GEN MX/EN)

Suitable extinguishing media: water spray, carbon dioxide, dry powder, foam

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. Burning produces harmful and toxic fumes.

## Advice for fire-fighters

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

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

## **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.

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

Avoid contact with the skin, eyes and clothing. Wear suitable protective clothing and eye/face protection. Ensure thorough ventilation of stores and work areas. Keep container tightly sealed.

## Vitamin A-Palmitate 1.6 Mio IU/G Feed

Revision date: 2025/08/07 Page: 5/13 Version: 5.0 (30041042/SDS GEN MX/EN)

## 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.

## 8. Exposure Controls/Personal Protection

## Components with occupational exposure limits

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

vapor ;

Sunflower oil OEL, MX: TWA value 3 mg/m3 Respirable fraction;

OEL, MX: TWA value 10 mg/m3 Inhalable fraction;

#### Advice on system design:

No applicable information available.

## Personal protective equipment

## Respiratory protection:

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

#### Hand protection:

Wear chemical resistant protective gloves.

#### Eye protection:

Tightly fitting safety goggles (chemical goggles).

## **Body protection:**

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

## 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. Avoid contact with skin. Wearing of closed work clothing is required additionally to the stated personal protection equipment. Store work clothing separately. No eating, drinking, smoking or tobacco use at the place of work. Hands and/or face should be washed before breaks and at the end of the shift.

## 9. Physical and Chemical Properties

Physical state: liquid

Form: liquid, partially crystallized

Odour: almost odourless

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

## Vitamin A-Palmitate 1.6 Mio IU/G Feed

Revision date: 2025/08/07 Page: 6/13 Version: 5.0 (30041042/SDS GEN MX/EN)

Colour: light yellow

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

water)

Melting point: approx. 26 °C
Freezing point: No data available.
Boiling point: The substance / product

decomposes therefore not

determined.

Sublimation point: No applicable information available.

Flash point: approx. 194 °C (ISO 2719)

Information based on the main

component/s.

Flammability: not flammable (derived from flash

point)

Lower explosion limit: For liquids not relevant for

classification and labelling. For liquids not relevant for

classification and labelling.

Autoignition: approx. 261 °C (DIN EN 14522)

Vapour pressure: 0.01 mbar

( 100 °C)

Density: 0.88 g/cm3

( 20 °C)

Relative density: No applicable information available.

Relative vapour density: not determined

Partitioning coefficient n- not applicable for mixtures

octanol/water (log Pow):

Upper explosion limit:

Self-ignition Risk of self-ignition when a large temperature: surface area is produced due to fine

dispersion.

Thermal decomposition: 170 °C (DSC (DIN 51007))

The values mentioned are those of the active ingredient.

Viscosity, dynamic: 44 mPa.s

(60°C)

Viscosity, kinematic: No data available.

Solubility in water: (20 °C)

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

Revision date: 2025/08/07 Page: 7/13

Version: 5.0 (30041042/SDS\_GEN\_MX/EN)

## **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

Temperature: > 60 degrees Celsius

Disregard of the conditions mentioned may result in undesirable decomposition reactions. Avoid electro-static discharge. Avoid all sources of ignition: heat, sparks, open flame.

## Incompatible materials

oxidizing agents

## **Hazardous decomposition products**

Decomposition products:

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

Thermal decomposition:

170 °C (DSC (DIN 51007))

The values mentioned are those of the active ingredient.

## 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: Virtually nontoxic after a single ingestion.

Information on: Vitamin A palmitate

Assessment of acute toxicity: Virtually nontoxic after a single ingestion.

Information on: Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-

-----

### Oral

Information on: Vitamin A palmitate

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

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

No mortality was observed. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Information on: Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-

Type of value: LD50

## Vitamin A-Palmitate 1.6 Mio IU/G Feed

Revision date: 2025/08/07 Page: 8/13 Version: 5.0 (30041042/SDS GEN MX/EN)

Species: rat

Value: > 2,930 mg/kg (OECD Guideline 401)

No mortality was observed.

Type of value: LD50

Species: rat

Value: 6,000 mg/kg (OECD Guideline 401)

-----

#### Inhalation

No applicable information available.

#### Dermal

No applicable information available.

#### Assessment other acute effects

No applicable information available.

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

#### <u>Irritation / corrosion</u>

Assessment of irritating effects: May cause slight irritation to the skin. Not irritating to the eyes.

Information on: Vitamin A palmitate

Assessment of irritating effects: Not irritating to the eyes. May cause slight irritation to the skin.

-----

## Sensitization

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

Information on: Vitamin A palmitate

Assessment of sensitization:

Skin sensitizing effects were not observed in animal studies.

-----

## Aspiration Hazard

No data available.

## **Chronic Toxicity/Effects**

#### Repeated dose toxicity

Assessment of repeated dose toxicity: Based on available data, the classification criteria are not met.

Information on: Vitamin A palmitate

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

Information on: Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-

-----

#### Genetic toxicity

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

Information on: Vitamin A palmitate

Revision date: 2025/08/07 Page: 9/13 Version: 5.0 (30041042/SDS GEN MX/EN)

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 fully tested. The statements have been derived in parts from products of a similar structure or composition.

-----

#### Carcinogenicity

Assessment of carcinogenicity: 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. No carcinogenic potential can be deduced from other studies with rats and mice.

Information on: Vitamin A palmitate

Assessment of carcinogenicity: 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: Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-

\_\_\_\_\_

#### Reproductive toxicity

Assessment of reproduction toxicity: No applicable information available.

Information on: Vitamin A palmitate

Assessment of reproduction toxicity: No reliable data are available concerning reproduction toxicity.

#### Teratogenicity

Assessment of teratogenicity: May cause harm to the unborn child.

Information on: Vitamin A palmitate

Assessment of teratogenicity: May cause harm to the unborn child.

-----

## Other Information

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

## 12. Ecological Information

## **Toxicity**

Aquatic toxicity

Assessment of aquatic toxicity:

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### Aquatic toxicity

Information on: Vitamin A palmitate

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

## Vitamin A-Palmitate 1.6 Mio IU/G Feed

Revision date: 2025/08/07 Page: 10/13 Version: 5.0 (30041042/SDS\_GEN\_MX/EN)

Information on: Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-

\_\_\_\_\_

#### Toxicity to fish

Information on: Vitamin A palmitate

LC50 (96 h) > 10,000 mg/l, Leuciscus idus (DIN 38412 Part 15, 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.

Information on: Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-

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). LC50 (96 h) 0.199 mg/l, Fish

LC50 (96 h) 1.1 mg/l, Oryzias latipes

\_\_\_\_\_

#### Aquatic invertebrates

Information on: Vitamin A palmitate

EC50 (48 h) > 100 mg/l, Daphnia magna (Screening test, 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.

Information on: Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-

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.

EC50 (48 h) 0.31 mg/l, Daphnia magna

EC50 (48 h) 0.92 mg/l, Daphnia magna

EC50 (48 h) 0.78 mg/l, Zebra Mussel

EC50 (48 h) 0.84 mg/l, Daphnia magna (OECD Guideline 202, part 1)

....

## Aquatic plants

Information on: Vitamin A palmitate

EC50 (72 h) 152.94 mg/l (growth rate), Scenedesmus subspicatus (DIN 38412 Part 9, static)

The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.

Information on: Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-

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.

No observed effect concentration (72 h) 0.4 mg/l (growth rate), Desmodesmus subspicatus

(Guideline 92/69/EEC, C.3)

(96 h) 0.758 mg/l, algae

(estimated)

(72 h) > 0.24 mg/l, Pseudokirchneriella subcapitata

-----

## Assessment of terrestrial toxicity

No data available.

## Persistence and degradability

Revision date: 2025/08/07 Page: 11/13 Version: 5.0 (30041042/SDS GEN MX/EN)

Assessment biodegradation and elimination (H2O)

Not readily biodegradable (by OECD criteria).

Assessment biodegradation and elimination (H2O)

Information on: Vitamin A palmitate

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

Information on: Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-

-----

## **Bioaccumulative potential**

#### Assessment bioaccumulation potential

The product contains components with potential for bioaccumulation

## Assessment bioaccumulation potential

Information on: Vitamin A palmitate

The product will not be readily bioavailable due to its consistency and insolubility in water. No significant accumulation in organisms is expected as a result of the distribution coefficient of noctanol/water (log Pow).

Information on: Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-

May be accumulated in organisms.

-----

#### Mobility in soil

#### Assessment transport between environmental compartments

The substance will not evaporate into the atmosphere from the water surface. Adsorption to solid soil phase is expected.

Information on: Vitamin A palmitate

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.

## Vitamin A-Palmitate 1.6 Mio IU/G Feed

Revision date: 2025/08/07 Page: 12/13 Version: 5.0 (30041042/SDS GEN MX/EN)

## 13. Disposal considerations

### Waste disposal of substance:

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

## **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**

Not applicable

**NFPA Hazard codes:** 

Health: 1 Fire: 1 Reactivity: 0 Special:

**HMIS III rating** 

Health: 1<sup>m</sup> Flammability: 1 Physical hazard: 0

## Assessment of the hazard classes according to UN GHS criteria (most recent version):

Skin Corr./Irrit. 3 Skin corrosion/irritation Repr. 1B (unborn child) Reproductive toxicity

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

## 16. Other Information

## SDS Prepared by:

BASF NA Product Regulations SDS Prepared on: 2025/08/07

Revision date: 2025/08/07 Page: 13/13 Version: 5.0 (30041042/SDS\_GEN\_MX/EN)

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.

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE, NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY OUR COMPANY HEREUNDER ARE GIVEN GRATIS AND WE ASSUME NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK. Date / Revised: 2025/08/07 Version: 5.0

Date / Previous version: 2022/10/31 Previous version: 4.0

**END OF DATA SHEET**