Safety Data Sheet (SDS) - Retinyl Acetate

According to Regulation (EC) No 1907/2006 (REACH), as amended by Regulation (EU) 2020/878
Version 1.1, 26-Oct-2026

Section 1. Identification of the substance/mixture and of the company

Product name: Retinyl Acetate 325,000 IU/g
Recommended uses: Ingredient for professional food, nutraceutical, cosmetic, formulation, analytical and R&D use
Uses advised against: Consumer use without professional assessment; uses not permitted by applicable legislation
Catalogue Number: N/A
Supplier: NATURE SCIENCE TECHNOLOGIES Ltd
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Section 2. Hazards identification

Classification: Regulation (EC) No 1272/2008 (CLP): Skin Sens. 1, H317; Repr. 1B, H360; Aquatic Chronic 4, H413.

Label elements:



Hazard pictograms: GHS07 and GHS08. Signal word: Danger.
Hazard statements: H317 May cause an allergic skin reaction. H360 May damage fertility or the unborn child. H413 May cause long lasting harmful effects to aquatic life.
Precautionary statements: P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P261 Avoid breathing dust. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection. P302+P352 IF ON SKIN: Wash with plenty of water. P308+P313 IF exposed or concerned: Get medical advice/attention. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P405 Store locked up. P501 Dispose of contents/container in accordance with applicable regulations.

Section 3. Composition/information on ingredients

Chemical name: Retinyl Acetate preparation, potency >=325,000 IU/g (HPLC specification); carrier and stabiliser system not specified in the quality document
Synonyms: Retinol acetate; Vitamin A acetate; all-trans-Retinyl acetate
Chemical formula: C22H32O2 (active ingredient)
Molecular weight: 328.50 g/mol (active ingredient)
CAS No: 127-47-9
EC No. 204-844-2

Section 4. First aid measures

Inhalation: Move to fresh air and keep at rest. Obtain medical attention if symptoms occur or exposure is significant.
Skin: Remove contaminated clothing. Wash skin with soap and plenty of water. If skin irritation or rash occurs, obtain medical advice.
Eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Obtain medical advice if irritation persists.
Rinse mouth. Do not induce vomiting. Contact a POISON CENTRE or doctor if unwell or if a significant amount was swallowed.

Section 5. Firefighting measures

Extinguishing media suitable: Water spray, alcohol-resistant foam, dry extinguishing powder or carbon dioxide. Use measures appropriate to the surrounding fire.
Special protection of fire-fighters: Wear self-contained breathing apparatus and full protective equipment. Thermal decomposition may produce carbon monoxide, carbon dioxide and irritating fumes.

Section 6. Accidental release measures

Personal precautions: Restrict access. Avoid dust formation, inhalation and contact with skin or eyes. Wear the protective equipment described in Section 8.
Environmental precautions: Prevent entry into drains, surface water and soil. Avoid release to the environment because long-lasting harmful effects are possible.
Methods for cleaning up: Collect mechanically or with a HEPA-filtered vacuum without generating dust. Place in a closed, labelled container for disposal and clean the affected area.

Section 7. Handling and storage

Handling: Obtain special instructions before use. Handle only after all safety precautions have been understood. Minimise dust and avoid inhalation and skin contact. Pregnant workers and persons planning pregnancy should not be exposed without an appropriate risk assessment.

Storage:	Store in a cool, dry, well-ventilated place. Keep container tightly closed and locked up. Protect from strong light and heat. Keep away from strong oxidising agents.

Section 8. Exposure controls/personal protection

Engineering measures:	No product-specific occupational exposure limit has been established. Apply applicable limits for nuisance dust. Use local exhaust ventilation and provide eyewash facilities.
Hygiene measures:	Wash hands and exposed skin after handling and before breaks. Do not eat, drink or smoke in work areas. Contaminated work clothing should not leave the workplace.
Personal protective equipment:	Respiratory protection: particulate-filter respirator when dust forms or ventilation is insufficient. Hands: chemical-resistant protective gloves, e.g. nitrile.
Skin and body:	Protective work clothing appropriate to the exposure. Select controls to prevent reproductive exposure.
Eyes:	Safety glasses with side shields or chemical goggles.

Section 9. Physical and chemical properties

Physical state:	Solid, powder
Colour:	Light yellow
Odour:	Characteristic or mild
Molecular Weight:	328.50 g/mol for retinyl acetate; not applicable to the preparation
Melting point:	No reliable product-specific data available
Flash point:	No data available
Boiling point:	Not applicable to the preparation
Solubility:	Product-specific quantitative data not available; retinyl acetate is insoluble in water
Explosive properties:	Not classified as explosive. Accumulated fine organic dust may form a combustible dust atmosphere.

Section 10. Stability and reactivity

Stability:	Stable under recommended storage conditions. Potency may deteriorate on exposure to light, oxygen, moisture and heat.
Materials to avoid:	Strong oxidising agents; concentrated acids or alkalis; heat, moisture and strong light.
Hazardous decomposition products:	Carbon monoxide, carbon dioxide and irritating fumes may form during combustion or thermal decomposition.

Section 11. Toxicological information

Acute toxicity:	Based on available product information, the classification criteria for acute toxicity are not met. Harmful effects may occur after ingestion of large quantities.
Skin corrosion/irritation:	Not classified for skin corrosion/irritation or serious eye damage/irritation. Dust may cause mechanical irritation.
Respiratory or skin sensitisation:	May cause an allergic skin reaction (Skin Sens. 1, H317). Respiratory sensitisation data are not available.
CMR effects:	May damage fertility or the unborn child (Repr. 1B, H360). The product is not classified for germ-cell mutagenicity or carcinogenicity based on available data.
Signs and symptoms of exposure:	Possible symptoms include skin irritation or allergic rash. Excessive ingestion of vitamin A may cause nausea, headache and other systemic effects; reproductive effects may be delayed.
Potential health effects:	The principal serious hazard is reproductive toxicity. Exposure must be controlled even when no immediate symptoms occur.
Inhalation:	Dust may cause respiratory discomfort or mechanical irritation.
Skin:	May cause an allergic skin reaction.
Eyes:	Dust may cause mechanical eye irritation.
Ingestion:	Large quantities may cause gastrointestinal and systemic vitamin A effects.
Other information:	Retinyl acetate is converted to vitamin A in the body. Repeated excessive exposure may affect the liver and development of the unborn child.

Section 12. Ecological information

Ecotoxicity:	May cause long lasting harmful effects to aquatic life (H413). Avoid uncontrolled release.
Persistence and degradability:	Product-specific persistence, degradability, bioaccumulation and mobility data are limited. The product is not identified as PBT or vPvB based on available information.
Other adverse effects:	The product is not identified as containing endocrine-disrupting components at 0.1% or above. Prevent environmental release.

Section 13. Disposal considerations

Product:	Dispose of contents through a licensed hazardous-waste contractor in accordance with local, regional and national requirements. Do not discharge to drains.

Contaminated packaging:	Empty completely. Handle contaminated packaging in the same way as the product. Recycle only thoroughly cleaned packaging where permitted.

Section 14. Transport information

ADR/RID:	Not regulated as dangerous goods
IMDG:	Not regulated as dangerous goods
IATA:	Not regulated as dangerous goods

Section 15. Regulatory information

EU regulatory information:	Prepared in accordance with Regulation (EC) No 1907/2006 (REACH), Annex II, as amended by Regulation (EU) 2020/878. Classification and labelling have been assessed under Regulation (EC) No 1272/2008 (CLP), as amended. Restricted to professional users where required by applicable legislation. A chemical safety assessment has not been carried out by the supplier for this product.

Section 16. Other information

Notice to reader:	Version 1.1; revision date 26-Oct-2026. Approved GHS pictogram artwork was applied with corrected aspect ratio and spacing. Chemical classification and transport wording were not changed. Full text of hazard statements: H317 May cause an allergic skin reaction. H360 May damage fertility or the unborn child. H413 May cause long lasting harmful effects to aquatic life. The information is based on the product specification and safety information available at the date of issue. It is provided in good faith as guidance for safe handling, storage, transport and disposal and is not a warranty of product properties. Users are responsible for assessing suitability and complying with applicable requirements.