

Safety Data Sheet

#14272110 · Full 16-section SDS

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

PRODUCT	CAS NUMBER	FORMULA	VERSION	REVISION DATE
Vitamin A Palmitate	79-81-2	C36H60O2	10	14 Sep 2026

SECTION 1

Identification

1.1 Product identifier

Product name	Vitamin A Palmitate
CAS number	79-81-2
EC / EINECS number	201-228-5
Chemical formula	C36H60O2
Molecular weight	524.86
SMILES	<chem>CCCCCCCCCCCCCCCC(=O)OC/C=C(\C)/C=C/C=C(\C)/C=C/C1=C(CCCC1(C)C)C</chem>

1.2 Relevant identified uses of the substance or mixture and uses advised against

For research use, laboratory use and manufacture of chemicals. Not for human or veterinary use.

1.3 Details of the supplier of the safety data sheet

Molekula Limited
1 Millennium Way, Newton Aycliffe
Durham, DL5 6JW, United Kingdom
info@molekula.com · +44 (0) 3302 000333

1.4 Emergency telephone number

0344 892 0111 — National Poisons Information Service (NPIS) (United Kingdom — for healthcare professionals (via TOXBASE))

SECTION 2

Hazard identification

2.1 Classification of the substance or mixture

Repr. 1A or Repr. 1B; H360D
Aquatic Chronic 3; H412

2.2 Label elements



DANGER

CODE	HAZARD STATEMENT
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H360D	May harm the unborn child
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H412	Harmful to aquatic life with long lasting effects
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CODE	PRECAUTIONARY STATEMENT
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P263	Avoid contact during pregnancy/while nursing
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P273	Avoid release to the environment
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P280	Wear protective gloves/protective clothing/eye protection/face protection
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P405	Store locked up
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P501	Dispose of contents/container to an approved waste disposal plant
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2.3 Other hazards

Does not contain components considered to have endocrine-disrupting properties. Does not meet PBT or vPvB criteria under REACH Annex XIII.

SECTION 3

Composition / information on ingredients

3.1 Substances

Name	Vitamin A Palmitate
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CAS number	79-81-2
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EC number	201-228-5
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Concentration / purity	c. 100% Vitamin A Palmitate (CAS: 79-81-2)- H360D, H412
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Classification according to Regulation (EC) No 1272/2008	Repr. 1A or Repr. 1B; H360D Aquatic Chronic 3; H412
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Hazard statements	H360D, H412
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Acute toxicity estimate (ATE)	No data available
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Impurities / stabilising additives	None
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SECTION 4

First-aid measures

4.1 Description of first aid measures

Inhalation	Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration.
Skin contact	Wash with plenty of water. Continue to rinse for at least 15 minutes and seek medical attention.
Eye contact	Remove contact lenses if present. Rinse eyes with water. Continue to rinse for at least 15 minutes and seek medical attention.
Ingestion	Rinse mouth. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

Get medical attention if any discomfort continues. Show this Safety Data Sheet (SDS) to medical personnel. First aiders/ medical personnel need to protect themselves.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5

Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	For this substance/mixture no limitations of extinguishing agents are given.
Unsuitable extinguishing media	None known

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products- Carbon oxides

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing

SECTION 6

Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing dust/fume/gas/mist/vapours/spray. Provide adequate ventilation. For personal protection, see section 8.

6.2 Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

6.3 Methods and material for containment and cleaning up

Absorb spillage with a suitable absorbent material.

6.4 Reference to other sections

For specific precautions, see Section 8 and Section 13.

SECTION 7

Handling & storage

7.1 Precautions for safe handling

Observe good chemical hygiene practices. Keep away from food, drink and animal feeding stuffs. Wash contaminated skin thoroughly after handling. Do not eat, drink or smoke when using this product. Remove contaminated clothing and laundry thoroughly before re-use.

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature	Ambient
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Conditions for safe storage (incompatibilities)	Store at ambient temperature. Store in a dry place. Store in a closed container. Store under inert gas.
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7.3 Specific end use(s)

See Section 1.2.

SECTION 8

Exposure controls / personal protection

8.1 Control parameters

Occupational exposure limits (OEL / WEL)	Not applicable
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DNEC/PNEC data	DNEC: Chronic effects systemic (Dermal)- 1.6 mg/kg bw/day PNEC: Fresh water- 0.1 mg/L Fresh water sediment- 595000 mg/kg sediment dw Water Intermittent- 1 mg/L Microorganisms in sewage treatment- 10 mg/L Marine water- 0.01 mg/L
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8.2 Exposure controls

Eye / face protection

Safety glasses

Wear eye/face protection as recommended. All eye/face protection should comply with EN ISO 16321-1:2022.

Skin / hand protection

Nitrile gloves Thickness: 0.11mm. Breakthrough time: 480mins.

Respiratory protection

Full-face respirator

Keep self-contained breathing apparatus readily available for emergency use. Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided. Respiratory equipment: Reusable Air-Purifying Respirator (APR). Filter type: ABEK. Standard: EN 14387.

Other protection

No data available

Environmental exposure controls

No data available

SECTION 9

Physical & chemical properties

9.1 Information on basic physical and chemical properties

Appearance / physical state

Viscous liquid

DERIVED FROM: LITERATURE

Colour

Yellow

DERIVED FROM: LITERATURE

Odour

Not known

DERIVED FROM: LITERATURE

Melting / freezing point

26-29°C

DERIVED FROM: LITERATURE

Boiling point

Not applicable

Flammability

No data available

Lower and upper explosion limit

No data available

Flash point

194 °C

DERIVED FROM: LITERATURE

Auto-ignition temperature

261°C

DERIVED FROM: LITERATURE

Decomposition temperature

No data available

pH

Not applicable

Acidity

Neutral

DERIVED FROM: LITERATURE

Kinematic viscosity

No data available

Solubility

No data available

Partition coefficient n-octanol/water (log value)

Not applicable

Vapour pressure

Not applicable

Density (g/mL)	0.92 g/mL DERIVED FROM: LITERATURE
Relative vapour density	No data available
Particle characteristics	No data available

9.2 Other information

No data available

SECTION 10

Stability & reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under the prescribed storage conditions

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Heat, sparks, flames.

10.5 Incompatible materials

Strong oxidising agents

10.6 Hazardous decomposition products

See section 5

SECTION 11

Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (LD50 / LC50)	Information on hazard classes as defined in Regulation (EC) No 1272/2008
Skin corrosion / irritation	Not classified
Eye corrosion / irritation	Not classified
Respiratory / skin sensitisation	Not classified
Carcinogenicity	Not classified
Mutagenicity	Not classified
Reproductive toxicity	May damage the unborn child
STOT (single / repeated exposure)	Not classified
Aspiration hazard	Not classified

11.2 Information on other hazards

Not classified

SECTION 12

Ecological information

12.1 Toxicity

static test LC50 - Leuciscus idus (Golden orfe) - > 10,000 mg/l - 96 h
static test EC50 - Daphnia magna (Water flea) - 35.34 mg/l - 48 h
static test ErC50 - Desmodesmus subspicatus (green algae) - 152.94 mg/l - 72 h
Ref: External SDS

12.2 Persistence and degradability

aerobic - Exposure time 28 d Result: 40 - 50 % - Partially biodegradable. Ref: External SDS

12.3 Bioaccumulative potential

Not applicable

12.4 Mobility in soil

Not applicable

12.5 Results of PBT and vPvB assessment

Not applicable

12.6 Endocrine disrupting properties

See Section 11.2.

12.7 Other adverse effects

No data available

SECTION 13

Disposal considerations

13.1 Waste treatment methods

Dispose of in accordance with local/national regulations

SECTION 14

Transport information

14.1 UN number or ID number

Not applicable

14.2 UN proper shipping name

Not applicable

14.3 Transport hazard class(es)

Not applicable

14.4 Packing group

Not applicable

14.5 Environmental hazards

Not applicable

14.6 Special precautions for user

Special precautions for user *Not applicable*

Transport category *Not applicable*

Tunnel code *Not applicable*

Packing instruction (ADR) *Not applicable*

Packing instruction (IMDG) *Not applicable*

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15

Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Substance-specific regulations (e.g. licences) *No data available*

REACH code Y110

ECHA notification *Not applicable*

15.2 Chemical safety assessment

Not applicable

SECTION 16

Other information

Revision notes / other information

Hazard classification and labelling according to Regulation (EC) 1272/2008
All eye/face protection should comply with EN ISO 16321-1:2022
Respiratory equipment: Reusable air-purifying respirator (APR)
Filter Type: ABEK
Standard: EN 14387
National Regulations:
-Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances
Other regulations, limitations and legal regulations:
-Directive 94/33/EC- The protection of young people at work.

This Safety Data Sheet was generated automatically from the data Molekula holds against this product, in the 16-section GHS/CLP format. Fields shown as "No data available" carry no recorded value; fields shown as "Not applicable" were assessed as not relevant to this substance. For queries, contact Molekula at info@molekula.com.