

Trade name: Vitamin D3 1.0 Mill/g

Substance number: 781100

Version: 1 / CH

Date revised: 21.08.2023

Replaces Version: - / CH

Print date: 21.08.23

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Vitamin D3 1.0 Mill/g

Item No. 78110005

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

Use of the substance/preparation

Vitamin

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Hänseler AG

Industriestrasse 35

9100 Herisau

Telephone no. 0041 (0)71 353 58 58

E-mail address of sdb@haenseler.ch

person responsible

for this SDS

1.4. Emergency telephone number

Switzerland :145 / Abroad +41 (0)44 251 51 51

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Acute Tox. 4 H302

Acute Tox. 4 H312

Acute Tox. 4 H332

STOT RE 2 H373

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008

For explanation of abbreviations see section 16.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms



Signal word

Warning

Hazard statements

H373 May cause damage to organs through prolonged or repeated exposure.

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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P264.1 Wash hands thoroughly after handling.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P301+P312 IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.
 P501.3 Disposal in compliance with local and national regulations.

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)

contains colecalciferol
 EUH208 Contains 3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol,
 May produce an allergic reaction.

2.3. Other hazards

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

SECTION 3: Composition/information on ingredients**Hazardous ingredients****colecalciferol**

CAS No. 67-97-0
 EINECS no. 200-673-2
 Concentration \geq 2.5 < 3 %
 Classification (Regulation (EC) No. 1272/2008)
 Acute Tox. 2 H300
 Acute Tox. 2 H310
 Acute Tox. 2 H330
 STOT RE 1 H372

Concentration limits (Regulation (EC) No. 1272/2008)

STOT RE 1 H372 \geq 3 %
 STOT RE 2 H373 \geq 0.3 < 3 %
 ATE oral 35 mg/kg
 ATE dermal 50 mg/kg
 cATpE inhalative, Dust/Mist 0.05 mg/l

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol

CAS No. 10191-41-0
 EINECS no. 233-466-0
 Registration no. 01-2120086658-39
 Concentration \geq 0.1 < 1 %
 Classification (Regulation (EC) No. 1272/2008)
 Skin Sens. 1B H317

SECTION 4: First aid measures**4.1. Description of first aid measures****After inhalation**

Remove the casualty into fresh air and keep him calm. Take medical treatment.

After skin contact

Wash off with soap and water.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.).

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After ingestion

Rinse out mouth and give plenty of water to drink. Summon a doctor immediately.

4.3. Indication of any immediate medical attention and special treatment needed**Hints for the physician / treatment**

Symptomatic treatment (decontamination, vital functions), no specific antidote known.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Water spray jet, Carbon dioxide, Dry powder, Foam

Non suitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Avoid inhalation of smoke and vapours.

5.3. Advice for firefighters**Special protective equipment for fire-fighting**

Use self-contained breathing apparatus. Use personal protective clothing.

Other information

Collect contaminated fire-fighting water separately, must not be discharged into the drains. Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations. Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protective clothing. Ensure adequate ventilation. Do not inhale vapours. Avoid contact with skin, eyes and clothing.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Advise water authority if spillage has entered water course or drainage system.

6.3. Methods and material for containment and cleaning up

Pick up with absorbent material (eg sand, kieselgur, acid binder, universal binder, sawdust). For large amounts: take up with appropriate instrument and dispose.

6.4. Reference to other sections

Information regarding personal protective measures, see Section 8. Information regarding waste disposal, see Section 13.

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Provide good ventilation of working area (local exhaust ventilation if necessary). Wear protective equipment. Keep container tightly closed.

Advice on protection against fire and explosion

Keep away from sources of heat and ignition. Take action to prevent static discharges.

7.2. Conditions for safe storage, including any incompatibilities

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Requirements for storage rooms and vessels

Keep tightly closed in a dry and cool place. Protect from exposure to light.

Storage classes

Storage class according to TRGS 510	6.1A	Combustible substances of acute toxicity categories 1 and 2 / very toxic hazardous substances
Storage category (Switzerland)	6.1	Toxic substances

SECTION 8: Exposure controls/personal protection**8.2. Exposure controls****General protective and hygiene measures**

General industrial hygiene practice. At work do not eat, drink, smoke or take drugs. Wash hands and face after work. Store work clothing separately.

Respiratory protection

Breathing apparatus in the event of vapours. Particle filter half mask, filter P2; Particle filter half mask, filter FFP2 - Norm DIN EN 149

Hand protection

The glove material must be sufficient impermeable and resistant to the substance. Check the tightness before wear. Gloves should be well cleaned before being removed, then stored in a well ventilated location.

Appropriate Material	nitrile rubber - NBR		
Material thickness	0.4	mm	
Breakthrough time	> 480	min	
Hand protection must comply with EN 374.			
Appropriate Material	Butyl rubber		
Material thickness	0.7	mm	
Breakthrough time	> 480	min	
Hand protection must comply with EN 374.			

Eye protection

Safety glasses with side protection shield; Eye protection must comply with EN 166.

Body protection

Clothing as usual in the chemical industry.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state	Oily		
Colour	colourless to slightly yellow		
Odour	not applicable		
Melting point			
Value	<	-5	°C
Flammability	The product is not easily combustible.		
Flash point			
Value	250		°C
Remarks	Information refers to the main component.		
pH value			
Remarks	Not applicable		
Vapour pressure			

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Remarks No data available

Density and/or relative density

Value	0.91		g/cm ³
Temperature	appr. 20	°C	

9.2. Other information**Odour threshold**

Remarks not determined

Solubility in water

Remarks dispersible

SECTION 10: Stability and reactivity**10.1. Reactivity**

No hazardous reactions when stored and handled according to prescribed instructions.

10.2. Chemical stability

Stable under recommended storage and handling conditions (see section 7).

10.3. Possibility of hazardous reactions

No decomposition if stored and applied as directed.

10.4. Conditions to avoid

Protect from light. Protect from heat and direct sunlight. Stable under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Running oxygen

10.6. Hazardous decomposition products

No hazardous decomposition products known when handled according to prescribed instructions.

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute oral toxicity**

ATE	1'167.05	mg/kg
	57	

Method calculated value (Regulation (EC) No. 1272/2008)

Acute oral toxicity (Components)**3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol**

Species	rat		
LD50	>	4000	mg/kg

colecalfiferol

ATE	35	mg/kg
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Acute dermal toxicity

ATE	1'667.22	mg/kg
	24	

Method calculated value (Regulation (EC) No. 1272/2008)

Acute dermal toxicity (Components)**3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol**

Species	rat		
LD50	>	3000	mg/kg

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colecalfiferol

ATE 50 mg/kg

colecalfiferolSpecies rat
LD50 61 mg/kg**Acute inhalational toxicity**

ATE 1.6672 mg/l

Administration/Form Dust/Mist
Method calculated value (Regulation (EC) No. 1272/2008)**Acute inhalative toxicity (Components)****colecalfiferol**

ATE 0.05 mg/l

colecalfiferolSpecies rat
LC50 appr. 0.14 mg/l
Duration of exposure 4 h**Skin corrosion/irritation (Components)****3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol**Species rabbit
evaluation Moderately irritating**colecalfiferol**

evaluation non-irritant

Serious eye damage/irritation (Components)**3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol**Species rabbit
evaluation slightly irritant
Method Draize method**colecalfiferol**

evaluation slightly irritant

Sensitization (Components)**3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol**evaluation sensitizing
Method OECD 406**3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol**Species mouse
evaluation sensitizing
Method OECD 406**Mutagenicity (Components)****3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol**

evaluation No mutagenicity according to various in vitro tests.

colecalfiferol

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

Reproduction toxicity (Components)**3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol**

evaluation No negative effects

colecalfiferol

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

Carcinogenicity (Components)**3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol**

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evaluation No indications of carcinogenic effects are available from long-term trials.

colecalfiferol

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

Specific Target Organ Toxicity (STOT) (Components)**colecalfiferol****Single exposure**

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

colecalfiferol**Repeated exposure**

Route of exposure oral
Organs: Kidneys

colecalfiferol**Repeated exposure**

Route of exposure oral
Organs: blood vessel

11.2 Information on other hazards**Endocrine disrupting properties with respect to humans**

The product does not contain a substance that has endocrine disrupting properties with respect to humans.

SECTION 12: Ecological information**12.1. Toxicity****Fish toxicity (Components)****3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol**

Species *Salmo gairdneri*
LC0 >= 10 mg/l
Duration of exposure 96 h

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol

Species golden orfe (*Leuciscus idus*)
LC50 > 10000 mg/l
Method DIN 38412 T.15
Remarks The details of the toxic effect relate to the nominal concentration.

colecalfiferol

Species zebra fish (*Brachydanio rerio*)
LC50 > 100 mg/l
Method OECD 203
Remarks The product is slightly soluble in the test medium. An aqueous dispersion was tested.

Daphnia toxicity (Components)**3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol**

Species *Daphnia magna*
EC50 > 500 mg/l
Duration of exposure 48 h
Remarks The details of the toxic effect relate to the nominal concentration.

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Species *Daphnia magna*
EC50 > 100 mg/l
Method OECD 202
Remarks The product is slightly soluble in the test medium. An eluate was tested.

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Algae toxicity (Components)**3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol**

Species	Pseudokirchneriella subcapitata		
ErC50	>	25.8	mg/l
Duration of exposure	72	h	
Method	OECD 201		

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol

Species	Pseudokirchneriella subcapitata		
NOEC	26		mg/l

colecalfiferol

Species	Pseudokirchneriella subcapitata		
EC50	>	100	mg/l
Method	OECD 201		
Remarks	The product is slightly soluble in the test medium. An eluate was tested.		
Source	BM000629 SDS BTC 20220301		

Bacteria toxicity (Components)**3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol**

Species	activated sludge		
EC10	>	10000	mg/l
Duration of exposure	30	min	
Method	DIN 38412 / Part 27		

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol

Species	activated sludge		
EC20	>	900	mg/l
Duration of exposure	30	min	
Method	DIN EN ISO 8192		

colecalfiferol

Species	activated sludge		
EC20	>	1000	mg/l
Duration of exposure	0.5	h	
Method	OECD 209		

12.2. Persistence and degradability**Biodegradability (Components)****3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol**

Value	8		%
Duration of test evaluation	28	d	
Method	not readily degradable OECD 301F		

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol

Value	70	to	80	%
Duration of test evaluation	63	d		
Method	biodegradable OECD 301F			
Source	öffentlich zugängliche Daten			

colecalfiferol

Value	<	10		%
Duration of test evaluation	28	d		
Method	OECD 301F			

12.4. Mobility in soil**Mobility in soil (Components)****colecalfiferol**

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Adsorbs on soil.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment

The product contains no PBT substances
The product contains no vPvB substances.

12.6 Endocrine disrupting properties

Endocrine disrupting properties with respect to the environment

The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

Disposal in compliance with local and national regulations.

Disposal recommendations for packaging

Disposal in compliance with local and national regulations.

SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
14.6. Special precautions for user	The product does not constitute a hazardous substance in land transport.	The product does not constitute a hazardous substance in sea transport.	The product does not constitute a hazardous substance in air transport.

SECTION 15: Regulatory information

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

Water Hazard Class (Germany)

Water Hazard Class WGK 2

(Germany)

Remarks Derivation of WGK according to Annex 1 No. 5.2 AwSV

SECTION 16: Other information

Hazard statements listed in Chapter 3

H300	Fatal if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H312	Harmful in contact with skin.
H317	May cause an allergic skin reaction.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.

CLP categories listed in Chapter 3

Acute Tox. 2 Acute toxicity, Category 2

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Acute Tox. 4
Skin Sens. 1B
STOT RE 1
STOT RE 2

Acute toxicity, Category 4
Skin sensitization, Category 1B
Specific target organ toxicity - repeated exposure, Category 1
Specific target organ toxicity - repeated exposure, Category 2

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***
This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.