

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 03/08/2018 Revision date: : Version: 1.0

ULM-9106-B

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

1.1. Product identifier

Product form : Mixtures

Product name : 1,25-DIHYDROXYVITAMIN D2 UNLABELED 50 UG/ML IN ETHANOL (CHEM. PURITY 95%)

Product code : ULM-9106-B

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

1.2.1. Relevant identified uses

Main use category : Professional use

Industrial/Professional use spec : For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Cambridge Isotope Laboratories, Inc.

50 Frontage Road Andover, MA 01810

USA

USA: 1-800-322-1174 Int: 1-978-749-8000 <u>cilsales@isotope.com</u> www.isotope.com

Emergency telephone number

Emergency numbers:

Chemtrec: 1-800-424-9300 (24 hours) International: 1-703-741-5970 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2 H225
Acute Tox. 3 (Oral) H301
Acute Tox. 3 (Dermal) H311
Skin Irrit. 2 H315
Eye Irrit. 2 H319
STOT SE 3 H335
STOT RE 1 H372

Full text of hazard classes and H-statements : see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

T; R48/24/25 F; R11 Xi; R36/37/38

Full text of R-phrases: see section 16

GHS-US classification

Flam. Liq. 2 H225
Acute Tox. 3 (Oral) H301
Acute Tox. 3 (Dermal) H311
Skin Irrit. 2 H315
Eye Irrit. 2 H319
STOT SE 3 H335
STOT RE 1 H372

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Nerves. Heart. Liver.

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2.2. Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)







GHS02

GHS06

Signal word (CLP) : Danger

Hazardous ingredients : 1,25-DIHYDROXYVITAMIN D2 UNLABELED (CHEM. PURITY 95%); ETHANOL UNLABELED

Hazard statements (CLP) : H225 - Highly flammable liquid and vapour

H301+H311 - Toxic if swallowed or in contact with skin

H315 - Causes skin irritation H319 - Causes serious eye irritation H335 - May cause respiratory irritation

H372 - Causes damage to organs (Skin, respiratory system/digestive system) through

prolonged or repeated exposure (in contact with skin, if inhaled, if swallowed)

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P233 - Keep container tightly closed.

P240 - Ground/bond container and receiving equipment.

P241 - Use explosion-proof electrical, lighting, ventilating equipment

P260 - Do not breathe dust, fume, gas, mist, spray, vapors.
P264 - Wash Both hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.

GHS-US labeling

Hazard pictograms (GHS-US)







GHS02

GHS08

GHS06

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H225 - Highly flammable liquid and vapour

H301+H311 - Toxic if swallowed or in contact with skin

H315 - Causes skin irritation H319 - Causes serious eye irritation H335 - May cause respiratory irritation

H372 - Causes damage to organs (respiratory system/digestive system, Skin) through

prolonged or repeated exposure (Dermal, Inhalation, oral)

Precautionary statements (GHS-US) : P210 - Keep away from heat, sparks, open flames. - No smoking.

P233 - Keep container tightly closed.

P240 - Ground/Bond container and receiving equipment

P241 - Use explosion-proof electrical, lighting, ventilating equipment

P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static discharge. P260 - Do not breathe dust, fume, gas, mist, spray, vapors. P261 - Avoid breathing dust/fume/gas/mist/vapors/spray. P264 - Wash Both hands thoroughly after handling. P270 - Do not eat, drink or smoke when using this product.

P271 - Use only outdoors or in a well-ventilated area. P280 - Wear protective clothing, protective gloves.

P301+P310 - If swallowed: Immediately call a doctor, a POISON CENTER

P302+P352 - If on skin: Wash with plenty of water

 ${\sf P303+P361+P353-If\ on\ skin\ (or\ hair):\ Take\ off\ immediately\ all\ contaminated\ clothing.\ Rinse}$

skin with water/shower

P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing

P312 - Call a doctor, a POISON CENTER if you feel unwell P314 - Get medical advice/attention if you feel unwell.

P321 - Specific treatment (see Hazard pictograms (CLP) on this label)

P322 - Specific treatment (see Hazardous component(s) for labeling on this label)

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P330 - Rinse mouth.

P332+P313 - If skin irritation occurs: Get medical advice/attention.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P370+P378 - In case of fire: Use alcohol resistant foam, carbon dioxide (CO2), dry

extinguishing powder to extinguish.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P403+P235 - Store in a well-ventilated place. Keep cool.

P405 - Store locked up.

P501 - Dispose of contents/container to Comply with applicable regulations

2.3. Other hazards

PBT: not yet assessed

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2 Mixtures

3.2. Mixtures			
Name	Product identifier	%	Classification according to Directive 67/548/EEC
ETHANOL UNLABELED	(CAS-No.) 64-17-5 (EC-No.) 200-578-6 (EC Index-No.) 603-002-00-5 (REACH-no) 01-2119457610-43	99.9937	F; R11 Xi; R36/37/38
1,25-DIHYDROXYVITAMIN D2 UNLABELED (CHEM. PURITY 95%)	(CAS-No.) 60133-18-8	0.0063	T; R48/25 T+; R26
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ETHANOL UNLABELED	(CAS-No.) 64-17-5 (EC-No.) 200-578-6 (EC Index-No.) 603-002-00-5 (REACH-no) 01-2119457610-43	99.9937	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
1,25-DIHYDROXYVITAMIN D2 UNLABELED (CHEM. PURITY 95%)	(CAS-No.) 60133-18-8	0.0063	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 2 (Inhalation:dust,mist), H330 STOT RE 1, H372
Name	Product identifier	%	GHS-US classification
ETHANOL UNLABELED	(CAS-No.) 64-17-5	99.9937	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
1,25-DIHYDROXYVITAMIN D2 UNLABELED (CHEM. PURITY 95%)	(CAS-No.) 60133-18-8	0.0063	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 1 (Inhalation), H330 STOT RE 1, H372

Full text of R- and H- phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general
First-aid measures after inhalation

- : If you feel unwell, seek medical advice (show the label where possible). Evacuate danger area.
- Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact

: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Gently wash with plenty of soap and water, Get immediate medical advice/attention. Get medical advice/attention. Specific treatment (see Hazard pictograms (CLP) on this label).

First-aid measures after eye contact

First-aid measures after ingestion

- : Rinse cautiously with water for several minutes.
- : Never give anything by mouth to an unconscious person. Rinse mouth out with water. Get medical advice/attention.

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Most important symptoms and effects, both acute and delayed

Symptoms/effects : Causes damage to organs (heart, liver, nervous system) through prolonged or repeated

exposure (in contact with skin, if inhaled, if swallowed).

Symptoms/effects after inhalation May be harmful if inhaled. May cause respiratory irritation.

Symptoms/effects after skin contact Toxic in contact with skin. Causes skin irritation.

Symptoms/effects after eye contact Causes serious eye irritation.

Symptoms/effects after ingestion : Toxic if swallowed.

Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media : Water spray. Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).

Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapour.

Explosion hazard : May form flammable/explosive vapor-air mixture.

: Highly flammable liquid and vapour. May form flammable/explosive vapor-air mixture. Reactivity

Advice for firefighters

Firefighting instructions Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing

apparatus. Do not enter fire area without proper protective equipment, including respiratory

protection.

Protection during firefighting Do not enter fire area without proper protective equipment, including respiratory protection.

Wear recommended personal protective equipment.

Other information : Use water spray to cool exposed surfaces

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No

smoking.

6.1.1. For non-emergency personnel

Emergency procedures : Use personal protective equipment as required. Avoid breathing vapors, mist, gas. Ensure adequate air ventilation. Evacuate unnecessary personnel. No flames, no sparks. Eliminate all

sources of ignition. Provide adequate ventilation to minimize dust and/or vapor concentrations. Special attention should be given to low areas/pits where flammable vapors can accumulate.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

Environmental precautions

For containment

Prevent entry to sewers and public waters. Do not allow to enter drains or water courses. Avoid release to the environment.

Methods and material for containment and cleaning up

: Collect spillage. Clean up any spills as soon as possible, using an absorbent material to collect it. Vacuum with an equipment that avoids ignition risk. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent safe disposal.

Methods for cleaning up This material and its container must be disposed of in a safe way, and as per local legislation.

Other information : Dispose of materials or solid residues at an authorized site.

Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.

: Avoid all eye and skin contact and do not breathe vapor and mist. Use explosion-proof Precautions for safe handling

equipment. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Avoid breathing vapors, spray, mist, gas, fume, dust. Use only outdoors or in a well-ventilated area.

: Handle in accordance with good industrial hygiene and safety practice. Wash hands, forearms Hygiene measures and face thoroughly after handling.

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7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep container tightly closed in a cool, dry and well-ventilated place. Proper grounding

procedures to avoid static electricity should be followed. Ground/bond container and receiving

equipment. Use explosion-proof Lighting equipment, ventilating equipment.

Storage conditions : Store in freezer (-20 C). Protect from light.

Incompatible materials : Heat sources.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

1,25-DIHYDROXYVITAMIN D2 UNLABELED 50 UG/ML IN ETHANOL (CHEM. PURITY 95%)		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	1000.00000000 ppm
Italy - Portugal - USA ACGIH	ACGIH STEL (ppm)	1000 ppm
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Upper Respiratory Tract irritation. Confirmed animal carcinogen with unknown relevance to humans.
USA NIOSH	NIOSH REL (TWA) (mg/m³)	1900 mg/m³
USA NIOSH	NIOSH REL (TWA) (ppm)	1000 ppm
USA NIOSH	Remark (NIOSH)	Upper Respiratory Tract irritation. Confirmed animal carcinogen with unknown relevance to humans.
USA OSHA	OSHA PEL (TWA) (mg/m³)	1900 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
USA OSHA	Remark (OSHA)	Upper Respiratory Tract irritation. Confirmed animal carcinogen with unknown relevance to humans. The value in mg/m3 is approximate.

ETHANOL UNLABELED (64-	17-5)	
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	1000.00000000 ppm
Italy - Portugal - USA ACGIH	ACGIH STEL (ppm)	1000 ppm
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Upper Respiratory Tract irritation. Confirmed animal carcinogen with unknown relevance to humans.
USA NIOSH	NIOSH REL (TWA) (mg/m³)	1900 mg/m³
USA NIOSH	NIOSH REL (TWA) (ppm)	1000 ppm
USA NIOSH	Remark (NIOSH)	Upper Respiratory Tract irritation. Confirmed animal carcinogen with unknown relevance to humans.
USA OSHA	OSHA PEL (TWA) (mg/m³)	1900 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
USA OSHA	Remark (OSHA)	Upper Respiratory Tract irritation. Confirmed animal carcinogen with unknown relevance to humans. The value in mg/m3 is approximate.

1,25-DIHYDROXYVITAMIN D2 UNLABELED 50 UG/ML IN ETHANOL (CHEM. PURITY 95%)		
DNEL/DMEL (Workers)		
Acute - systemic effects, inhalation	1900 mg/m³	
Long-term - systemic effects, dermal	343 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	950 mg/m³	
DNEL/DMEL (additional information)		
Additional information	DNEL - Workers - Ingestion - Long-term systemic effects - 343 mg/kg BW/d	
PNEC (Water)		
PNEC aqua (freshwater)	0.96 mg/l	
PNEC aqua (marine water)	0.79 mg/l	
PNEC (Sediment)		
PNEC sediment (freshwater)	3.6 mg/kg dwt	
PNEC (Soil)		
PNEC soil	0.63 mg/kg dwt	
PNEC (STP)		
PNEC sewage treatment plant	580 mg/l	

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8.2. Exposure controls

Appropriate engineering controls : Wash hands and other exposed areas with mild soap and water before eating, drinking or

smoking and when leaving work.

Personal protective equipment : Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus.



Materials for protective clothing : Wear suitable protective clothing and gloves. Hand protection : Wear suitable protective clothing and gloves.

Eye protection : Wear eye protection. Chemical goggles or face shield with safety glasses.

Skin and body protection : Wear suitable protective clothing, gloves and eye/face protection.

Respiratory protection : In case of inadequate ventilation wear respiratory protection. Approved supplied air respirator.

Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

The properties listed below are for the solvent, the main component of this mixture.

Physical state : Liquid

Appearance : Liquid, clear

Molecular mass : 46.07 g/mol

Color : Colorless

Odor : No data available

Odor threshold : No data available pH : No data available Relative evaporation rate (butyl acetate=1) : No data available Melting point : -114 °C (-173 °F) Freezing point : No data available Boiling point : 78 °C (172 °F)

Flash point : 14 °C (57.2 °F) - closed cup

Auto-ignition temperature : 363 °C (685.4 °F)

Decomposition temperature : No data available

Flammability (solid, gas)

: Highly flammable liquid and vapour

Vapor pressure

: 59.5 hPa (44.6 mmHg) at 20 °C (68 °F)

Relative vapor density at 20 °C : No data available Relative density : No data available

Specific gravity / density : 0.789 g/ml at 25 °C (77 °F) Solubility Water: completely soluble Log Pow : -0.349 at 24 °C (75 °F) : No data available Log Kow : No data available Viscosity, kinematic No data available Viscosity, dynamic Explosive properties : No data available Oxidizing properties : No data available : 3.3 - 19 % Explosion limits

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapour. May form flammable/explosive vapor-air mixture.

10.2. Chemical stability

See storage and expiration date on CoA.

10.3. Possibility of hazardous reactions

Hygroscopic.

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10.4. Conditions to avoid

Heat. Open flame. Direct sunlight. Sparks.

10.5. Incompatible materials

Alkali metals. ammonia. Oxidizing agent. Peroxides.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO2).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	Oral: Toxic if swallowed. Dermal: Toxic in contact with skin.	
1,25-DIHYDROXYVITAMIN D2 UNLABELED 50 UG/ML IN ETHANOL (CHEM. PURITY 95%)		
LD50 oral rat	10470 mg/kg	
LD50 dermal rat	15800 mg/kg	
LC50 inhalation rat (mg/l)	30000 mg/l	
ATE CLP (oral)	100.000 mg/kg body weight	
ATE CLP (dermal)	300.000 mg/kg body weight	
ATE CLP (vapors)	30000.000 mg/l/4h	
ATE CLP (dust, mist)	30000.000 mg/l/4h	
1,25-DIHYDROXYVITAMIN D2 UNLABELED (CHEM. PURITY 95%) (60133-18-8)		
ATE CLP (oral)	100.000 mg/kg body weight	
ATE CLP (dermal)	300.000 mg/kg body weight	
ATE CLP (dust, mist)	0.050 mg/l/4h	
ETHANOL UNLABELED (64-17-5)		
LD50 oral rat	10470 mg/kg	
LD50 dermal rat	15800 mg/kg	
LC50 inhalation rat (mg/l)	30000 mg/l	

Skin corrosion/irritation : Causes skin irritation.

Skin – Rabbit - No skin irritation - (OECD 404 method)

Serious eye damage/irritation : Causes serious eye irritation.

Eyes – Rabbit - Moderate eye irritation - (OECD 404 method)

Respiratory or skin sensitization : Not classified Germ cell mutagenicity : Not classified

Carcinogenicity : Carcinogenicity - Mouse - Oral Tumorigenic: Equivical tumorigenic agent by RTECS criteria.

10470.000 mg/kg body weight

15800.000 mg/kg body weight

30000.000 mg/l/4h

30000.000 mg/l/4h

Liver: Tumors. Blood: Lymphomas including Hodgkin's disease.

Reproductive toxicity : Reproductive toxicity oral. human. female. Effects on Newborn: Other neonatal measures or

effects.

Reproductive toxicity Oral - human - female - Effects on Newborn: Apgar score (human only).

Effects on Newborn: Drug dependence.

May cause respiratory irritation.

Specific target organ toxicity - single exposure

Specific target organ toxicity - repeated

exposure

ATE CLP (oral)

ATE CLP (dermal)

ATE CLP (vapors)

ATE CLP (dust, mist)

Causes damage to organs (Skin, respiratory system/digestive system) through prolonged or repeated exposure (in contact with skin, if inhaled, if swallowed).

: Not classified

Potential Adverse human health effects and

symptoms

Aspiration hazard

: CNS depression. Narcosis. Risk of serious damage. to. heart. This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. Stomach - Irregularities - Based on Human Evidence.

Symptoms/effects after inhalation : May be harmful if inhaled. May cause respiratory irritation.

Symptoms/effects after skin contact : Toxic in contact with skin. Causes skin irritation.

Symptoms/effects after eye contact : Causes serious eye irritation.

Symptoms/effects after ingestion : Toxic if swallowed.

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

1,25-DIHYDROXYVITAMIN D2 UNLABELED 50 UG/ML IN ETHANOL (CHEM. PURITY 95%)		
LC50 fish 1	14200 mg/l Pimephales promelas (fathead minnow) - 96 h	
EC50 Daphnia 1	5012 mg/l Ceriodaphnia dubia (Water flea) - 48 h	
EC50 other aquatic organisms 1	275 mg/l Chlorella vulgaris (Fresh water algae) - 72 h (OECD method 201)	
NOEC (acute)	9.6 mg/l Daphnia magna (Water flea) - 9 d	
ETHANOL UNLABELED (64-17-5)		
LC50 fish 1	14200 mg/l Pimephales promelas (fathead minnow) - 96 h	
EC50 Daphnia 1	5012 mg/l Ceriodaphnia dubia (Water flea) - 48 h	
EC50 other aquatic organisms 1	275 mg/l Chlorella vulgaris (Fresh water algae) - 72 h (OECD method 201)	
NOEC (acute)	9.6 mg/l Daphnia magna (Water flea) - 9 d	

12.2. Persistence and degradability

1,25-DIHYDROXYVITAMIN D2 UNLABELED 50 UG/ML IN ETHANOL (CHEM. PURITY 95%)		
Persistence and degradability	Readily biodegradable.	
BOD (% of ThOD)	95 % ThOD	

ETHANOL UNLABELED (64-17-5)	
Persistence and degradability	Readily biodegradable.
BOD (% of ThOD)	95 % ThOD

12.3. Bioaccumulative potential

1,25-DIHYDROXYVITAMIN D2 UNLABELED 50 UG/ML IN ETHANOL (CHEM. PURITY 95%)	
Log Pow	-0.349 at 24 °C (75 °F)
Bioaccumulative potential	Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

ETHANOL UNLABELED (64-17-5)	
Log Pow	-0.349 at 24 °C (75 °F)
Bioaccumulative potential	Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Waste materials should be disposed of under conditions which meet Federal, State, and local

environmental control regulations.

Product/Packaging disposal recommendations : Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed

professional waste disposal service to dispose of this material.

Additional information : Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials : Dispose of as unused product.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No.(DOT) : 1170 DOT NA no. UN1170

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Ethanol

Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

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Hazard labels (DOT) : 3 - Flammable liquid



Packing group (DOT) : II - Medium Danger

DOT Special Provisions (49 CFR 172.102)

: 24 - Alcoholic beverages containing more than 70 percent alcohol by volume must be transported as materials in Packing Group II. Alcoholic beverages containing more than 24 percent but not more than 70 percent alcohol by volume must be transported as materials in

Packing Group III.

IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.

T4 - 2.65 178.274(d)(2) Normal...... 178.275(d)(3)

TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

DOT Packaging Exceptions (49 CFR 173.xxx) : 4b;150
DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
DOT Packaging Bulk (49 CFR 173.xxx) : 242

14.3. Additional information

Other information : No supplementary information available.

Overland transport

Hazard identification number (Kemler No.) : 33

Orange plates

33 1170

Tunnel restriction code (ADR) : D/E
Limited quantities (ADR) : 11
EAC : •2YE
Excepted quantities (ADR) : E2

Transport by sea

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a

passenger vessel.

MFAG-No : 127

Air transport

DOT Quantity Limitations Passenger aircraft/rail : 5 L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 60 L

CFR 175.75)

Civil Aeronautics Law : Flammable liquids

14.4. Environmental hazards

Other information : No supplementary information available.

14.5. Special precautions for user

14.6. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

1.25-DIHYDROXYVITAMIN D2 UNI	ARELED 50 UG/MI	IN FTHANOL (CHE	M. PURITY 95%)

SARA Section 302 Threshold Planning
Quantity (TPQ)

Not subject to reporting requirements of the United States SARA Section 302

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

1,25-DIHYDROXYVITAMIN D2 UNLABELED 50 UG/ML IN ETHANOL (CHEM. PURITY 95%)			
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard		
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313		
1,25-DIHYDROXYVITAMIN D2 UNLABELED (1,25-DIHYDROXYVITAMIN D2 UNLABELED (CHEM. PURITY 95%) (60133-18-8)		
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard		
ETHANOL UNLABELED (64-17-5)	ETHANOL UNLABELED (64-17-5)		
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302		
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard		
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313		

15.2. International regulations

CANADA

1,25-DIHYDROXYVITAMIN D2 UNLABELED 50 UG/ML IN ETHANOL (CHEM. PURITY 95%) Listed on the Canadian DSL (Domestic Substances List)

15.2.1. National regulations

No additional information available

15.3. US State regulations

1,25-DIHYDROXYVITAMIN D2 UNLABELED 50 UG/ML IN ETHANOL (CHEM. PURITY 95%)				
U.S California - Proposition 65 - Carcinogens List	No			
U.S California - Proposition 65 - Developmental Toxicity	No			
U.S California - Proposition 65 - Reproductive Toxicity - Female	No			
U.S California - Proposition 65 - Reproductive Toxicity - Male	No			
State or local regulations	U.S Massachusetts - Right To Know List U.S Pennsylvania - RTK (Right to Know) List U.S New Jersey - Right to Know Hazardous Substance List			

1,25-DIHYDROXYVITAMIN D2 UNLABELED (CHEM. PURITY 95%) (60133-18-8)						
U.S California - Proposition 65 -	U.S California - Proposition 65 -	U.S California - Proposition 65 -	U.S California - Proposition 65 -	No significant risk level (NSRL)		
Carcinogens List	Developmental Toxicity	Reproductive Toxicity - Female	Reproductive Toxicity - Male	,		
No	No	No	No			

ETHANOL UNLABELED (64-17-5)					
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	
No	No	No	No		

1,25-DIHYDROXYVITAMIN D2 UNLABELED (CHEM. PURITY 95%) (60133-18-8)

State or local regulations

- U.S. Pennsylvania RTK (Right to Know) List U.S. New Jersey Right to Know Hazardous Substance List

ETHANOL UNLABELED (64-17-5)

State or local regulations

- U.S. Massachusetts Right To Know List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. New Jersey Right to Know Hazardous Substance List

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 16: Other information

Other information

: This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

Full text of R-, H- and EUH-phrases:

om or region and = or prinaceor	
Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Flam. Liq. 2	Flammable liquids Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapour
H301	Toxic if swallowed
H311	Toxic in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H330	Fatal if inhaled
H335	May cause respiratory irritation
H372	Causes damage to organs through prolonged or repeated exposure
R11	Highly flammable
R26	Very toxic by inhalation
R36/37/38	Irritating to eyes, respiratory system and skin
R48/24/25	Toxic: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed
R48/25	Toxic: danger of serious damage to health by prolonged exposure if swallowed
F	Highly flammable
Т	Toxic
T+	Very toxic
Xi	Irritant

NFPA health hazard

: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard

: 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.

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NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 3 Serious Hazard
Physical : 0 Minimal Hazard

CIL Mixture SDS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

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