



# 24,25-DIHYDROXYVITAMIN D2 UNLABELED 100 UG/ML IN ETHANOL

## 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: 06/09/2016

Revision date: 04/04/2018

Supersedes: 06/09/2016

Version: 2.0

ULM-9109-C

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

### 1.1. Product identifier

Product form : Mixtures  
Product name : 24,25-DIHYDROXYVITAMIN D2 UNLABELED 100 UG/ML IN ETHANOL  
Product code : ULM-9109-C

### 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  
[cilsales@isotope.com](mailto:cilsales@isotope.com) [www.isotope.com](http://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  
Skin Irrit. 2 H315  
Eye Irrit. 2 H319  
STOT SE 3 H335

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

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

F; R11  
Xi; R36/37/38  
N; R51/53

Full text of R-phrases: see section 16

#### GHS-US classification

Flam. Liq. 2 H225  
Skin Irrit. 2 H315  
Eye Irrit. 2A H319  
STOT SE 3 H335  
Aquatic Acute 2 H401

Full text of H statements : see section 16

#### Adverse physicochemical, human health and environmental effects

Nerves, Liver, Heart.

# 24,25-DIHYDROXYVITAMIN D2 UNLABELED 100 UG/ML IN ETHANOL

ULM-9109-C

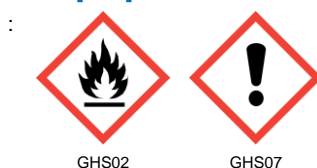
## Safety Data Sheet

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

### 2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Hazard statements (CLP)

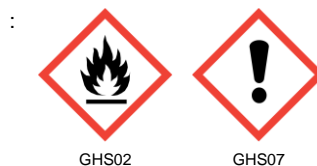
: H225 - Highly flammable liquid and vapor  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H335 - May cause respiratory irritation

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  
P261 - Avoid breathing dust, fume, gas, mist, spray, vapors  
P264 - Wash Both hands thoroughly after handling  
P271 - Use only outdoors or in a well-ventilated area  
P280 - Wear protective clothing, protective gloves

#### GHS-US labeling

Hazard pictograms (GHS-US)



Signal word (GHS-US)

: Danger

Hazard statements (GHS-US)

: H225 - Highly flammable liquid and vapor  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H335 - May cause respiratory irritation  
H401 - Toxic to aquatic life

Precautionary statements (GHS-US)

: P210 - Keep away from heat, hot surfaces, open flames, sparks. - 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  
P261 - Avoid breathing dust, gas, mist, spray, vapors, fume  
P264 - Wash Both hands thoroughly after handling  
P271 - Use only outdoors or in a well-ventilated area  
P273 - Avoid release to the environment  
P280 - Wear protective clothing, protective gloves  
P302+P352 - If on skin: Wash with plenty of water/...  
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 poison center/doctor/... if you feel unwell  
P321 - Specific treatment (see Hazard pictograms (CLP) on this label)  
P332+P313 - If skin irritation occurs: Get medical advice/attention  
P337+P313 - If eye irritation persists: Get medical advice/attention  
P362 - Take off contaminated clothing and wash it before reuse  
P370+P378 - In case of fire: Use Carbon dioxide, Dry chemical, Alcohol resistant foam, Water spray 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

# 24,25-DIHYDROXYVITAMIN D2 UNLABELED 100 UG/ML IN ETHANOL

ULM-9109-C

## 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

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 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	99.987	F; R11 Xi; R36/37/38
24,25-DIHYDROXYVITAMIN D2 UNLABELED	(CAS No) 58050-55-8	0.013	T; R24/25 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	99.987	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
24,25-DIHYDROXYVITAMIN D2 UNLABELED	(CAS No) 58050-55-8	0.013	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 2 (Inhalation:dust,mist), H330

Name	Product identifier	%	GHS-US classification
ETHANOL UNLABELED	(CAS No) 64-17-5	99.987	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

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	: Move out of dangerous area. Consult a physician and show this safety data sheet. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. 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	: Wash with soap and plenty of water. Consult a physician. 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 medical advice/attention. Specific treatment (see Hazard pictograms (CLP) on this label).
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Flush eyes with water as a precaution. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Get medical advice/attention.
First-aid measures after ingestion	: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation	: May be harmful if inhaled. Causes respiratory tract irritation. May cause respiratory irritation.
Symptoms/injuries after skin contact	: May be harmful if absorbed through skin. Causes skin irritation. Causes skin irritation.
Symptoms/injuries after eye contact	: Causes eye irritation. Causes serious eye irritation.
Symptoms/injuries after ingestion	: May be harmful if swallowed.

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

# 24,25-DIHYDROXYVITAMIN D2 UNLABELED 100 UG/ML IN ETHANOL

ULM-9109-C

## 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

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Suitable extinguishing media : For small fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water. Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : Highly flammable liquid and vapor.
- Explosion hazard : May form flammable/explosive vapor-air mixture.
- Reactivity : Vapors may form explosive mixture with air.

#### 5.3. Advice for firefighters

- Firefighting instructions : Use water spray to cool unopened containers. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

#### 6.1. 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 : Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

- For containment : Contain spillage, then collect with non-combustible absorbent material. Disposal should be in accordance with applicable Federal, State and local regulations.
- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Additional hazards when processed : Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Handle empty containers with care because residual vapors are flammable.
- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Avoid breathing dust, mist or spray.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Wash Both hands thoroughly after handling.

#### 7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Keep container tightly closed in a cool, dry and well-ventilated place.
- Storage conditions : Store in freezer (-20°C). Protect from light.
- Incompatible products : Strong bases. Strong acids.
- Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

#### 7.3. Specific end use(s)

No additional information available

# 24,25-DIHYDROXYVITAMIN D2 UNLABELED 100 UG/ML IN ETHANOL

ULM-9109-C

## 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

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

24,25-DIHYDROXYVITAMIN D2 UNLABELED 100 UG/ML IN ETHANOL		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	1000.00000000 ppm Upper Respiratory Tract irritation. Confirmed animal carcinogen.
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
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/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
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/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
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/m <sup>3</sup> is approximate.

#### 8.2. Exposure controls

Personal protective equipment : Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus. Avoid all unnecessary exposure.



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

Eye protection : Wear safety glasses with side shields (or goggles) and a face shield. Chemical goggles or safety glasses.

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place. Handle with gloves. Wear suitable protective clothing.

Respiratory protection : When appropriate, use NIOSH/CEN approved respirator. Wear appropriate mask.

Other information : Do not eat, drink or smoke during use.

### 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 vapor
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

# 24,25-DIHYDROXYVITAMIN D2 UNLABELED 100 UG/ML IN ETHANOL

ULM-9109-C

## 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

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)
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: 3.3 - 19 %

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Vapors may form explosive mixture with air.

### 10.2. Chemical stability

Stable if stored under recommended conditions.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Keep away from heat, sparks and flame. Direct sunlight. Extremely high or low temperatures. Open flame.

### 10.5. Incompatible materials

Alkali metals, Ammonia, Oxidizing agents, Peroxides. Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - None known. fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

24,25-DIHYDROXYVITAMIN D2 UNLABELED 100 UG/ML IN ETHANOL	
LD50 oral rat	7060 mg/kg
LC50 inhalation rat (ppm)	20000 ppm 10 h
ATE CLP (oral)	7060.000 mg/kg body weight
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
ATE CLP (oral)	10470.000 mg/kg body weight
ATE CLP (dermal)	15800.000 mg/kg body weight
ATE CLP (vapors)	30000.000 mg/l/4h
ATE CLP (dust, mist)	30000.000 mg/l/4h
24,25-DIHYDROXYVITAMIN D2 UNLABELED (58050-55-8)	
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

Skin corrosion/irritation	: Causes skin irritation. Causes skin irritation
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: May cause respiratory irritation. Inhalation - May cause respiratory irritation. May cause respiratory irritation

# 24,25-DIHYDROXYVITAMIN D2 UNLABELED 100 UG/ML IN ETHANOL

ULM-9109-C

## 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

Specific target organ toxicity – repeated exposure	: Not classified No data available
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: May be harmful if inhaled. Causes respiratory tract irritation. May cause respiratory irritation.
Symptoms/injuries after skin contact	: May be harmful if absorbed through skin. Causes skin irritation. Causes skin irritation.
Symptoms/injuries after eye contact	: Causes eye irritation. Causes serious eye irritation.
Symptoms/injuries after ingestion	: May be harmful if swallowed.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - water : Toxic to aquatic life.

24,25-DIHYDROXYVITAMIN D2 UNLABELED 100 UG/ML IN ETHANOL	
LC50 fish 1	13000 mg/l Oncorhynchus mykiss (rainbow trout) - 96 h
EC50 Daphnia 1	9.3 mg/l Daphnia magna (Water flea) - 48 h
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

24,25-DIHYDROXYVITAMIN D2 UNLABELED 100 UG/ML IN ETHANOL	
Persistence and degradability	Not available. Not established.
ETHANOL UNLABELED (64-17-5)	
Persistence and degradability	Readily biodegradable.
BOD (% of ThOD)	95 % ThOD
24,25-DIHYDROXYVITAMIN D2 UNLABELED (58050-55-8)	
Persistence and degradability	Not available.

### 12.3. Bioaccumulative potential

24,25-DIHYDROXYVITAMIN D2 UNLABELED 100 UG/ML IN ETHANOL	
Log Pow	-0.349 at 24 °C (75 °F)
Bioaccumulative potential	Not available. Not established.
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.
24,25-DIHYDROXYVITAMIN D2 UNLABELED (58050-55-8)	
Bioaccumulative potential	Not available.

### 12.4. Mobility in soil

24,25-DIHYDROXYVITAMIN D2 UNLABELED 100 UG/ML IN ETHANOL	
Ecology - soil	Not available.
24,25-DIHYDROXYVITAMIN D2 UNLABELED (58050-55-8)	
Ecology - soil	Not available.

### 12.5. Results of PBT and vPvB assessment

ETHANOL UNLABELED (64-17-5)	
PBT: not yet assessed	

### 12.6. Other adverse effects

Other adverse effects	: Not available.
Other information	: Avoid release to the environment.

# 24,25-DIHYDROXYVITAMIN D2 UNLABELED 100 UG/ML IN ETHANOL

ULM-9109-C

## 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

### 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: : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to Comply with applicable regulations.
- Additional information : Handle empty containers with care because residual vapors are flammable.
- Ecology - waste materials : Avoid release to the environment.

### 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
- 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
- Marine pollutant : No



#### 14.3. Additional information

- Other information : No supplementary information available.

#### Overland transport

- Packing group (ADR) : II
- Class (ADR) : 3 - Flammable liquid
- Hazard identification number (Kemler No.) : 33
- Classification code (ADR) : F1
- Hazard labels (ADR) : 3 - Flammable liquids







# 24,25-DIHYDROXYVITAMIN D2 UNLABELED 100 UG/ML IN ETHANOL

ULM-9109-C

## 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

Orange plates	:	 
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 (49 CFR 173.27) : 5 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L

Civil Aeronautics Law : Flammable liquids

### 14.4. Environmental hazards

Dangerous for the environment :



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

24,25-DIHYDROXYVITAMIN D2 UNLABELED 100 UG/ML IN ETHANOL	
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
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

24,25-DIHYDROXYVITAMIN D2 UNLABELED 100 UG/ML IN ETHANOL
Listed on the Canadian DSL (Domestic Substances List)

#### 15.2.1. National regulations

No additional information available

# 24,25-DIHYDROXYVITAMIN D2 UNLABELED 100 UG/ML IN ETHANOL

ULM-9109-C

## 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

### 15.3. US State regulations

24,25-DIHYDROXYVITAMIN D2 UNLABELED 100 UG/ML IN ETHANOL()	
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

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	

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	

### SECTION 16: Other information

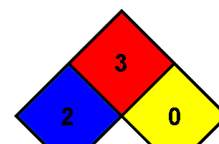
Other information : This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the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

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

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 SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
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
R11	Highly flammable
R24/25	Toxic in contact with skin and if swallowed
R26	Very toxic by inhalation
R36/37/38	Irritating to eyes, respiratory system and skin
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
F	Highly flammable
N	Dangerous for the environment
T	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.



# 24,25-DIHYDROXYVITAMIN D2 UNLABELED 100 UG/ML IN ETHANOL

ULM-9109-C

## 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

---

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

### HMIS III 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*