

## Safety Data Sheet according to WHS Regulations

Printing date 13.02.2017

Version number 4

Revision: 13.02.2017

Hazardous according to criteria of Australian Safety and Compensation Council.

### 1 Identification

- **Product identifier**
- **Trade name:** Vitamine D3/D2 by HPLC, MP
- **Article number:** 1954103
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** In-Vitro-laboratory reagent or component
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Bio-Rad Laboratories Pty., Ltd.  
Level 5, 446 Victoria Road  
Gladesville, New South Wales 2111  
Phone: +61 (2) 9914-2800  
Fax: +61 (2) 9914-2888
- **Further information obtainable from:**  
Technical Support:  
E-mail: TechSupport.ANZCDG@bio-rad.com
- **Emergency telephone number:**  
GBK Gefahrgut Büro GmbH  
Tel.: 0049(0)6123-84463

### 2 Hazard(s) Identification

- **Classification of the substance or mixture**  
Flam. Liq. 2 H225 Highly flammable liquid and vapour.  
Acute Tox. 4 H312 Harmful in contact with skin.  
Eye Irrit. 2A H319 Causes serious eye irritation.

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- **Label elements**

- **GHS label elements**

The product is classified and labelled according to the Globally Harmonised System (GHS).

- **Hazard pictograms**



GHS02    GHS07

- **Signal word** Danger
- **Hazard-determining components of labelling:**  
acetonitrile
- **Hazard statements**  
Highly flammable liquid and vapour.  
Harmful in contact with skin.  
Causes serious eye irritation.
- **Precautionary statements**  
Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
Use explosion-proof electrical/ventilating/lighting equipment.  
Wear protective gloves/protective clothing/eye protection/face protection.

(Contd. on page 2)

## Safety Data Sheet

### according to WHS Regulations

Printing date 13.02.2017

Version number 4

Revision: 13.02.2017

Trade name: Vitamine D3/D2 by HPLC, MP

(Contd. of page 1)

*IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*

*IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*



*Dispose of contents/container in accordance with local/regional/national/international regulations.*

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition and Information on Ingredients

- **Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

75-05-8	acetonitrile	25-50%
	 Flam. Liq. 2, H225;  Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Irrit. 2A, H319	

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

### 4 First Aid Measures

- **Description of first aid measures**
- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**  
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Call for a doctor immediately.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

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(Contd. on page 3)

# **Safety Data Sheet** according to WHS Regulations

Printing date 13.02.2017

Version number 4

Revision: 13.02.2017

**Trade name: Vitamine D3/D2 by HPLC, MP**

(Contd. of page 2)

## **6 Accidental Release Measures**

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## **7 Handling and Storage**

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No further relevant information available.

## **8 Exposure controls and personal protection**

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

**75-05-8 acetonitrile**

WES	Short-term value: 101 mg/m <sup>3</sup> , 60 ppm
	Long-term value: 67 mg/m <sup>3</sup> , 40 ppm
Sk	

- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.

(Contd. on page 4)

## Safety Data Sheet

### according to WHS Regulations

Printing date 13.02.2017

Version number 4

Revision: 13.02.2017

Trade name: Vitamine D3/D2 by HPLC, MP

(Contd. of page 3)

*Avoid contact with the eyes.**Avoid contact with the eyes and skin.***· Respiratory protection:***In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.***· Protection of hands:**

Protective gloves

*The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.**Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.**Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation***· Material of gloves***The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.***· Penetration time of glove material***The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.***· Eye protection:**

Tightly sealed goggles

**· Body protection:** Protective work clothing

## 9 Physical and Chemical Properties

**· Information on basic physical and chemical properties****· General Information****· Appearance:**

<b>Form:</b>	Liquid
<b>Colour:</b>	Colourless
<b>· Odour:</b>	Characteristic
<b>· Odour threshold:</b>	Not determined.

<b>· pH-value:</b>	Not determined.
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**· Change in condition**

<b>Melting point/freezing point:</b>	Undetermined.
<b>Initial boiling point and boiling range:</b>	81 °C

<b>· Flash point:</b>	<13 °C
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<b>· Flammability (solid, gas):</b>	Not applicable.
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<b>· Ignition temperature:</b>	524 °C
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<b>· Decomposition temperature:</b>	Not determined.
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(Contd. on page 5)

**Safety Data Sheet**  
according to WHS Regulations

Printing date 13.02.2017

Version number 4

Revision: 13.02.2017

**Trade name: Vitamine D3/D2 by HPLC, MP**

(Contd. of page 4)

· <b>Auto-ignition temperature:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· <b>Explosion limits:</b> Lower: Upper:	3.0 Vol % 17.0 Vol %
· <b>Vapour pressure at 20 °C:</b>	97 hPa
· <b>Density at 20 °C:</b> · <b>Relative density</b> · <b>Vapour density</b> · <b>Evaporation rate</b>	0.89 g/cm <sup>3</sup> Not determined. Not determined. Not determined.
· <b>Solubility in / Miscibility with water:</b>	Fully miscible.
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b> Dynamic: Kinematic: · <b>Other information</b>	Not determined. Not determined. No further relevant information available.

## 10 Stability and Reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological Information

- **Information on toxicological effects**
- **Acute toxicity**
- **Primary irritant effect:**
- **Skin corrosion/irritation** No irritant effect.
- **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation** No sensitising effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Harmful  
Irritant

## 12 Ecological Information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.

(Contd. on page 6)

**Safety Data Sheet**  
according to WHS Regulations

Printing date 13.02.2017

Version number 4

Revision: 13.02.2017

**Trade name: Vitamine D3/D2 by HPLC, MP**


(Contd. of page 5)

- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

- |   |                               |
|---|-------------------------------|
| · <b>UN-Number</b>  | UN1648                        |
| · <b>ADG, IMDG, IATA</b>  |                               |
| · <b>UN proper shipping name</b>  | 1648 ACETONITRILE mixture     |
| · <b>ADG</b>  | ACETONITRILE mixture          |
| · <b>IMDG, IATA</b>   |                               |
| · <b>Transport hazard class(es)</b>   |                               |
| · <b>ADG, IMDG, IATA</b>  |                               |
|  |                               |
| · <b>Class</b>  | 3 Flammable liquids.          |
| · <b>Label</b>  | 3                             |
| · <b>Packing group</b>  |                               |
| · <b>ADG, IMDG, IATA</b>  | II                            |
| · <b>Environmental hazards:</b>   |                               |
| · <b>Marine pollutant:</b>  | No                            |
| · <b>Special precautions for user</b>   | Warning: Flammable liquids.   |
| · <b>Danger code (Kemler):</b>  | 33                            |
| · <b>EMS Number:</b>  | F-E,S-D                       |
| · <b>Stowage Category</b>   | B                             |
| · <b>Stowage Code</b>   | SW2 Clear of living quarters. |

(Contd. on page 7)

## Safety Data Sheet

according to WHS Regulations

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Version number 4

Revision: 13.02.2017

Trade name: Vitamine D3/D2 by HPLC, MP

(Contd. of page 6)

· <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
· <b>Transport category</b>	2
· <b>Tunnel restriction code</b>	D/E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN 1648 ACETONITRILE MIXTURE, 3, II

### 15 Regulatory information

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

· **Australian Inventory of Chemical Substances**

All ingredients are listed.

· **Standard for the Uniform Scheduling of Medicines and Poisons**

None of the ingredients is listed.

· **GHS label elements**

The product is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**



GHS02 GHS07

· **Signal word** Danger

· **Hazard-determining components of labelling:**  
acetonitrile

· **Hazard statements**

Highly flammable liquid and vapour.

Harmful in contact with skin.

Causes serious eye irritation.

· **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Use explosion-proof electrical/ventilating/lighting equipment.

Wear protective gloves/protective clothing/eye protection/face protection.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 8)



## Safety Data Sheet according to WHS Regulations

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(Contd. of page 7)

- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category P5c** FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Relevant phrases**

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

- **Department issuing SDS:**

Bio-Rad Laboratories GmbH

Heidemannstrasse 164

D-80939 Munich

- **Contact:**

Technical Support:

E-Mail: [cts-ce@bio-rad.com](mailto:cts-ce@bio-rad.com)

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Acute Tox. 4: Acute toxicity – Category 4

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A