

## Safety Data Sheet according to WHS Regulations

Printing date 13.02.2017

Version number 10

Revision: 13.02.2017

Hazardous according to criteria of Australian Safety and Compensation Council.

### 1 Identification

- **Product identifier**
- **Trade name:** Levetiracetam by HPLC, MP
- **Article number:** 1956694
- **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. 3 H226 Flammable liquid and vapour.
- **Label elements**
- **GHS label elements**  
The product is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms**



GHS02

- **Signal word** Warning
- **Hazard-determining components of labelling:**  
acetonitrile
- **Hazard statements**  
Flammable liquid and vapour.
- **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.  
Ground/bond container and receiving equipment.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

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- **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   | 1-<10% |
|         |  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**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **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:** No special measures required.

### 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).
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

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### 7 Handling and Storage

- **Handling:**
- **Precautions for safe handling** Keep receptacles tightly sealed.
- **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:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **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**

|  |  |
|--|--|
| · <b>Ingredients with limit values that require monitoring at the workplace:</b> |  |
| 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:** Wash hands before breaks and at the end of work.
- **Respiratory protection:** Not required.
- **Protection of hands:**  
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

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· **Body protection:** Protective work clothing

**9 Physical and Chemical Properties**

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

|                           |                 |
|---------------------------|-----------------|
| · <b>Form:</b>            | Fluid           |
| · <b>Colour:</b>          | Colourless      |
| · <b>Odour:</b>           | Characteristic  |
| · <b>Odour threshold:</b> | Not determined. |

· **pH-value at 20 °C:** 4

· **Change in condition**

|   |       |
|---|-------|
| · <b>Melting point/freezing point:</b>            | 0 °C  |
| · <b>Initial boiling point and boiling range:</b> | 78 °C |

· **Flash point:** 43 °C

· **Flammability (solid, gas):** Not applicable.

· **Ignition temperature:**

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.

· **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· **Explosion limits:**

|                 |                 |
|-----------------|-----------------|
| · <b>Lower:</b> | Not determined. |
| · <b>Upper:</b> | Not determined. |

· **Vapour pressure at 20 °C:** 23 hPa

|                            |                     |
|----------------------------|---------------------|
| · <b>Density at 20 °C:</b> | 1 g/cm <sup>3</sup> |
| · <b>Relative density</b>  | Not determined.     |
| · <b>Vapour density</b>    | Not determined.     |
| · <b>Evaporation rate</b>  | Not determined.     |

· **Solubility in / Miscibility with water:** Fully miscible.

· **Partition coefficient: n-octanol/water:** Not determined.

· **Viscosity:**

|                     |                 |
|---------------------|-----------------|
| · <b>Dynamic:</b>   | Not determined. |
| · <b>Kinematic:</b> | Not determined. |

· **Other information** 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.

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- **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** No irritating effect.
- **Respiratory or skin sensitisation** No sensitising effects known.

### 12 Ecological Information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **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 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **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

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>ADG, IMDG, IATA</b></li> </ul>   | UN1993   |
| <ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>ADG</b></li> </ul> | 1993 FLAMMABLE LIQUID, N.O.S.<br>(ACETONITRILE), special provision 640E<br>FLAMMABLE LIQUID, N.O.S. (ACETONITRILE) |
| <ul style="list-style-type: none"> <li>· <b>IMDG, IATA</b></li> </ul>                                    |  |

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· Transport hazard class(es)

· ADG, IMDG, IATA



· Class

3 Flammable liquids.

· Label

3

· Packing group

· ADG, IMDG, IATA

III

· Environmental hazards:

· Marine pollutant:

No

· Special precautions for user

Warning: Flammable liquids.

· Danger code (Kemler):

30

· EMS Number:

F-E, S-E

· Stowage Category

A

· Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

· Transport/Additional information:

· ADG

· Limited quantities (LQ)

5L

· Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· Transport category

3

· Tunnel restriction code

D/E

· IMDG

· Limited quantities (LQ)

5L

· Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· UN "Model Regulation":

UN 1993 FLAMMABLE LIQUID, N.O.S., SPECIAL PROVISION 640E (ACETONITRILE), 3, III

## 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).

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· **Hazard pictograms**

GHS02

· **Signal word** Warning· **Hazard-determining components of labelling:**

acetonitrile

· **Hazard statements**

Flammable liquid and vapour.

· **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.

Ground/bond container and receiving equipment.

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

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

· **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:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

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

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*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**Flam. Liq. 3: Flammable liquids – Category 3**Acute Tox. 4: Acute toxicity – Category 4**Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A*

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