

# Safety Data Sheet

acc. to OSHA HCS

Printing date 02/13/2017

Reviewed on 02/13/2017

## 1 Identification

- **1.1 Product identifier**
- **Trade name:** TDM by HPLC, INT STND 1
- **Article number:** 1956626
- **Application of the substance / the mixture** In-Vitro-laboratory reagent or component
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Bio-Rad Laboratories, Inc  
4000 Alfred Nobel Drive  
Hercules, California 94547  
USA  
Phone: 510-724-7000  
Toll-Free: 1-800-2-BIORAD (800-224-6723)  
Fax: 510-741-6373
- **Information department:**  
Technical Support:  
Email: support@bio-rad.com
- **1.4 Emergency telephone number:**  
GBK Gefahrgut Büro GmbH  
Tel.: 0049(0)6123-84463

## 2 Hazard(s) identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
Flam. Liq. 3 H226 Flammable liquid and vapor.  
Acute Tox. 5 H333 May be harmful if inhaled.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labeled according to the CLP regulation.
- **Hazard pictograms**



GHS02

- **Signal word** Warning
- **Hazard-determining components of labeling:**  
acetonitrile
- **Hazard statements**  
H226 Flammable liquid and vapor.  
H333 May be harmful if inhaled.
- **Precautionary statements**  
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P241 Use explosion-proof electrical/ventilating/lighting/equipment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P240 Ground/bond container and receiving equipment.  
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 02/13/2017

Reviewed on 02/13/2017

Trade name: TDM by HPLC, INT STND 1

(Contd. of page 1)

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



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

## 3 Composition/information on ingredients

- **3.2 Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

### · **Dangerous components:**

75-05-8	acetonitrile	1-<10%
---------	--------------	--------

## 4 First-aid measures

- **4.1 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.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5 Fire-fighting measures

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

## 6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**  
Dilute with plenty of water.

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 02/13/2017

Reviewed on 02/13/2017

Trade name: TDM by HPLC, INT STND 1

(Contd. of page 2)

Do not allow to enter sewers/ surface or ground water.

· **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· **6.4 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.

· **Protective Action Criteria for Chemicals**

· **PAC-1:**

75-05-8	acetonitrile	13 ppm
---------	--------------	--------

· **PAC-2:**

75-05-8	acetonitrile	50 ppm
---------	--------------	--------

· **PAC-3:**

75-05-8	acetonitrile	150 ppm
---------	--------------	---------

## 7 Handling and storage

· **7.1 Precautions for safe handling** Keep receptacles tightly sealed.

· **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

· **7.2 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 receptacle tightly sealed.

· **7.3 Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **8.1 Control parameters**

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

**75-05-8 acetonitrile**

PEL	Long-term value: 70 mg/m <sup>3</sup> , 40 ppm
-----	--

REL	Long-term value: 34 mg/m <sup>3</sup> , 20 ppm
-----	--

TLV	Long-term value: 34 mg/m <sup>3</sup> , 20 ppm
-----	--

Skin	
------	--

· **Additional information:** The lists that were valid during the creation were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:** Wash hands before breaks and at the end of work.

· **Breathing equipment:** Not required.

· **Protection of hands:**



Protective gloves

(Contd. on page 4)

## Safety Data Sheet

acc. to OSHA HCS

Printing date 02/13/2017

Reviewed on 02/13/2017

Trade name: TDM by HPLC, INT STND 1

(Contd. of page 3)

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

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

· **General Information**

· **Appearance:**

Form: Fluid

Color: Colorless

· **Odor:** Characteristic

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range: 118-119 °C (244-246 °F)

Boiling point/Boiling range: >82 °C (>180 °F)

· **Flash point:** 33 °C (91 °F)

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

· **Ignition temperature:** 524 °C (975 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

· **Vapor pressure at 20 °C (68 °F):** 23 hPa (17 mm Hg)

· **Density at 20 °C (68 °F):** 0.99 g/cm<sup>3</sup> (8.26155 lbs/gal)

· **Relative density** Not determined.

· **Vapor density** Not determined.

(Contd. on page 5)

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 02/13/2017

Reviewed on 02/13/2017

**Trade name: TDM by HPLC, INT STND 1**

(Contd. of page 4)

- |   |  |
|---|--|
| · <b>Evaporation rate</b>                         | Not determined.                            |
| · <b>Solubility in / Miscibility with Water:</b>  | Fully miscible.                            |
| · <b>Partition coefficient (n-octanol/water):</b> | Not determined.                            |
| · <b>Viscosity:</b>                               |  |
| <b>Dynamic:</b>                                   | Not determined.                            |
| <b>Kinematic:</b>                                 | Not determined.                            |
| · <b>9.2 Other information</b>                    | No further relevant information available. |

## 10 Stability and reactivity

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

## 11 Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**  
May be harmful if inhaled.
- **Primary irritant effect:**
- **on the skin:** Based on available data, the classification criteria are not met.
- **on the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

## 12 Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (Self-assessment): hazardous for water

(Contd. on page 6)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 02/13/2017

Reviewed on 02/13/2017

Trade name: TDM by HPLC, INT STND 1

(Contd. of page 5)

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.

## · 12.5 Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

· 12.6 Other adverse effects No further relevant information available.

## 13 Disposal considerations

## · 13.1 Waste treatment methods

## · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

## · Uncleaned packagings:

· Recommendation: Disposal must be made according to official regulations.

· Recommended cleansing agent: Water, if necessary with cleansing agents.

## 14 Transport information

## · 14.1 UN-Number

· DOT, ADR, IMDG, IATA

UN1993

## · 14.2 UN proper shipping name

· DOT

· ADR

Flammable liquids, n.o.s. (Acetonitrile)

1993 Flammable liquids, n.o.s. (Acetonitrile), special provision 640E

· IMDG, IATA

FLAMMABLE LIQUID, N.O.S. (ACETONITRILE)

## · 14.3 Transport hazard class(es)

· DOT



· Class

3 Flammable liquids

· Label

3

· ADR, IMDG, IATA



· Class

3 Flammable liquids

· Label

3

## · 14.4 Packing group

· DOT, ADR, IMDG, IATA

III

## · 14.5 Environmental hazards:

· Marine pollutant:

No

## · 14.6 Special precautions for user

Warning: Flammable liquids

· Danger code (Kemler):

30

· EMS Number:

F-E, S-E

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 02/13/2017

Reviewed on 02/13/2017

Trade name: TDM by HPLC, INT STND 1

(Contd. of page 6)

· <b>Stowage Category</b>	A
· <b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b>	
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN 1993 FLAMMABLE LIQUIDS, N.O.S., SPECIAL PROVISION 640E (ACETONITRILE), 3, III

## 15 Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**· **Sara**· **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

· **Section 313 (Specific toxic chemical listings):**

75-05-8 | acetonitrile

· **TSCA (Toxic Substances Control Act):**

75-05-8 | acetonitrile

7732-18-5 | water, distilled, conductivity or of similar purity

· **Proposition 65**· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenicity categories**· **EPA (Environmental Protection Agency)**

75-05-8 | acetonitrile

CBD, D

· **TLV (Threshold Limit Value established by ACGIH)**

75-05-8 | acetonitrile

A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

(Contd. on page 8)

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 02/13/2017

Reviewed on 02/13/2017

**Trade name: TDM by HPLC, INT STND 1**

(Contd. of page 7)

· **15.2 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.*

· **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)

· **Date of preparation / last revision** 02/13/2017 / 15

· **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  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
ACGIH: American Conference of Governmental Industrial Hygienists  
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)  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
NIOSH: National Institute for Occupational Safety  
OSHA: Occupational Safety & Health  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
Flam. Liq. 3: Flammable liquids – Category 3  
Acute Tox. 5: Acute toxicity – Category 5

· **\* Data compared to the previous version altered.**