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

Printing date 02/02/2015 Reviewed on 12/24/2014 1 Identification · Product identifier · Trade name: Bio-Plex<sup>™</sup> Cell Lysis Buffer · Catalog or product number: 9704159, 9704428, 10040488, 10040487 · Relevant identified uses of the substance or mixture and uses advised against No further relevant information available. · Application of the substance / the mixture Laboratory chemicals · Details of the supplier of the safety data sheet · Manufacturer/Supplier: Bio-Rad Laboratories, Life Science Group 2000 Alfred Nobel Drive Hercules, California 94547 (510)741-1000 · Information department: Technical services, customer support lsg techserv us@bio-rad.com · Emergency telephone number: 1(800)424-9300 Use only in the event of a CHEMICAL EMERGENCY involving a SPILL, LEAK, FIRE, EXPLOSION or ACCIDENT. 510-741-1000 2 Hazard(s) identification

 $\cdot$  Classification of the substance or mixture

Eye Irrit. 2A H319 Causes serious eye irritation.

- · Classification according to Directive 67/548/EEC or Directive 1999/45/EC not applicable
- · Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· Classification system:

The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.

The classification was made according to OSHA 29CFR 1910.1200 and 1910.1030, and is expanded upon from company and/or literature information.

#### · Label elements

- GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms



Signal word Warning
 Hazard statements
 H319 Causes serious eye irritation.

- · Precautionary statements
- P280Wear eye protection / face protection.P264Wash thoroughly after handling.

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P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

· Additional information: Contact with acids may cause release of toxic gases

· Other hazards

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- **3** Composition/information on ingredients
- · Chemical characterization: Substances
- · CAS No. Description:
- 7732-18-5 water
- · Identification number(s):
- · EC number: 231-791-2
- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with non-hazardous additions.

| <ul> <li>Listing of dangerous and non-hazardous components:</li> </ul> |                           |          |
|--|---------------------------|----------|
| Proprietary Reagent R  | Xi R38-41                 | 1.0-2.5% |
| Proprietary Reagent T  | T R25<br>Xi R36/38<br>R32 | 0.1-1.0% |
| 7732-18-5 water  |                           | 50-100%  |

· Additional information For the wording of the listed risk phrases refer to section 15.

#### 4 First-aid measures

- · Description of first aid measures
- · General information No special measures required.
- · 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 Induce vomiting and call for medical help.
- · 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
- CO2, extinguishing 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.

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#### 6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Wear protective clothing.
- · Environmental precautions: No special measures required.
- · Methods and material for containment and cleaning up:
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- · Reference to other sections

No dangerous substances are released. 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

• Precautions for safe handling No special measures required.

- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage
- · Requirements to be met by storerooms and receptacles: According to product specification
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- · 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.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:
- The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment
- · General protective and hygienic measures The usual precautionary measures for handling chemicals should be followed.
- · Breathing equipment: Not required.
- · Protection of hands: Protective gloves.
- · Material of gloves Synthetic gloves
- · 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: Safety glasses

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| 9 Physical and chemical prope   | 9 Physical and chemical properties            |  |  |
|---|---|--|--|
| <ul> <li>Information on basic physical and chemical properties</li> <li>General Information</li> </ul>    |   |  |  |
| · Appearance:   |   |  |  |
| Form:   | Liquid  |  |  |
| Color:  | Colorless<br>Odorless                         |  |  |
| • Odor:<br>• Odour threshold:   | Not determined.                               |  |  |
| · pH-value at 20 °C:  | 8   |  |  |
| •   | 0   |  |  |
| <ul> <li>Change in condition<br/>Melting point/Melting range:<br/>Boiling point/Boiling range:</li> </ul> | 0 °C<br>undetermined                          |  |  |
| · Flash point:  | Not applicable                                |  |  |
| · Flammability (solid, gaseous)   | Not applicable.                               |  |  |
| · Ignition temperature:   |   |  |  |
| Decomposition temperature:  | Not determined.                               |  |  |
| · Auto igniting:  | Product is not selfigniting.                  |  |  |
| · Danger of explosion:  | Product does not present an explosion hazard. |  |  |
| · Explosion limits:   |   |  |  |
| Lower:  | Not determined.                               |  |  |
| Upper:  | Not determined.                               |  |  |
| · Vapor pressure at 20 °C:  | 23 hPa  |  |  |
| · Density:  | Not determined                                |  |  |
| · Relative density  | Not determined.                               |  |  |
| · Vapour density  | Not determined.                               |  |  |
| · Evaporation rate  | Not determined.                               |  |  |
| <ul> <li>Solubility in / Miscibility with<br/>Water:</li> </ul>   | Fully miscible                                |  |  |
| · Partition coefficient (n-octanol/wat  | ter): Not determined.                         |  |  |
| · Viscosity:  |   |  |  |
| dynamic:  | Not determined.                               |  |  |
| kinematic:  | Not determined.                               |  |  |
| · Solvent content:  |   |  |  |
| Organic solvents:   | 0.0 %   |  |  |
| Water:  | 97.5 %  |  |  |
| · Other information   | No further relevant information available.    |  |  |

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#### 10 Stability and reactivity

- · Reactivity
- · 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:
- · on the skin: No irritant effect.
- · on the eye: Irritant effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

· 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.

· Target organs: Not applicable.

#### **12 Ecological information**

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: Generally not hazardous for water.
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

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· Other adverse effects No further relevant information available.

#### **13 Disposal considerations**

· Waste treatment methods

Recommendation

Hand over to hazardous waste disposers.

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.

| 4 Transport information  |  |
|--|--|
| · UN-Number<br>· DOT, ADR, ADN, IMDG, IATA   | Void   |
| <ul> <li>UN proper shipping name</li> <li>DOT, ADR, ADN, IMDG, IATA</li> </ul>         | Void   |
| · Transport hazard class(es)   |  |
| · DOT, ADR, ADN, IMDG, IATA<br>· Class   | Void   |
| · Packing group<br>· DOT, ADR, IMDG, IATA  | Void   |
| <ul> <li>Environmental hazards:</li> <li>Marine pollutant:</li> </ul>                  | No   |
| · Special precautions for user   | Not applicable.                                      |
| <ul> <li>Transport in bulk according to Annex II of MA<br/>and the IBC Code</li> </ul> | ARPOL73/78<br>Not applicable.                        |
| · Transport/Additional information:  | Not dangerous according to the above specifications. |
| · UN "Model Regulation":   | -  |

#### **15 Regulatory information**

• Safety, health and environmental regulations/legislation specific for the substance or mixture • SARA (Superfund Amendents and Reauthorization Act of 1986 - USA)

· Section 302/304 (40CFR355.30 / 40CFR355.40):

Proprietary Reagent D

• Section 313 (40CFR372.65):

Proprietary Reagent D

· TSCA (Toxic Substances Control Act):

Proprietary Reagent A

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Proprietary Reagent K Proprietary Reagent T Proprietary Reagent D

7732-18-5 water

· Carcinogenic categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

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

None of the ingredients is listed.

· National regulations

· Water hazard class: Generally not hazardous for water.

· 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: Environmental Health and Safety.

#### · Contact:

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000 · Date of preparation / last revision 02/02/2015 / -

#### 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

- DOT: US Department of Transportation
- IATA: International Air Transport Association

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)

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

• \* Data compared to the previous version altered.

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