

## Safety Data Sheet

acc. to OSHA HCS

Printing date 05/09/2017

Reviewed on 05/09/2017

**1 Identification**

- **Product identifier**
- **Trade name:** Bio-Plex Pro™ Coupled Magnetic Beads (Rat)
- **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:** 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**

- **Classification of the substance or mixture**  
Skin Sens. 1 H317 May cause an allergic skin reaction.
- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard-determining components of labeling:**  
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)
- **Hazard statements**  
H317 May cause an allergic skin reaction.
- **Precautionary statements**  
P261 Avoid breathing dust/fume/gas/mist/vapors/spray  
P280 Wear protective gloves.  
P321 Specific treatment (see on this label).  
P363 Wash contaminated clothing before reuse.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **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.

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## 3 Composition/information on ingredients

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

- **Listing of dangerous and non-hazardous components:**

|            |                                                                                                                                                                                                                                                  |           |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 57-50-1    | sucrose, pure                                                                                                                                                                                                                                    | 5-10%     |
| 7647-14-5  | sodium chloride<br>Skin Irrit. 2, H315; Eye Irrit. 2A, H319                                                                                                                                                                                      | 2.5-5%    |
| 26628-22-8 | sodium azide<br>Acute Tox. 2, H300                                                                                                                                                                                                               | 0.01-0.1% |
| 55965-84-9 | reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)<br>Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331<br>Skin Corr. 1B, H314<br>Skin Sens. 1, H317 | 0.01-0.1% |

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

## 4 First-aid measures

- **Description of first aid measures**
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Induce vomiting and call for medical help.
- **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** Use fire fighting measures that suit the environment.
- **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 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**  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

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## · Protective Action Criteria for Chemicals

### · PAC-1:

|            |                  |                         |
|------------|------------------|-------------------------|
| 1185-53-1  | Tris-HCl         | 12 mg/m <sup>3</sup>    |
| 1310-73-2  | sodium hydroxide | 0.5 mg/m <sup>3</sup>   |
| 26628-22-8 | sodium azide     | 0.026 mg/m <sup>3</sup> |

### · PAC-2:

|            |                  |                        |
|------------|------------------|------------------------|
| 1185-53-1  | Tris-HCl         | 130 mg/m <sup>3</sup>  |
| 1310-73-2  | sodium hydroxide | 5 mg/m <sup>3</sup>    |
| 26628-22-8 | sodium azide     | 0.29 mg/m <sup>3</sup> |

### · PAC-3:

|            |                  |                       |
|------------|------------------|-----------------------|
| 1185-53-1  | Tris-HCl         | 790 mg/m <sup>3</sup> |
| 1310-73-2  | sodium hydroxide | 50 mg/m <sup>3</sup>  |
| 26628-22-8 | sodium azide     | 5.3 mg/m <sup>3</sup> |

## 7 Handling and storage

### · Handling

- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **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 following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

### 57-50-1 sucrose, pure

|     |                                                                                 |
|-----|---------------------------------------------------------------------------------|
| PEL | Long-term value: 15* 5** mg/m <sup>3</sup><br>*total dust **respirable fraction |
| REL | Long-term value: 10* 5** mg/m <sup>3</sup><br>*total dust **respirable fraction |
| TLV | Long-term value: 10 mg/m <sup>3</sup>                                           |

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**26628-22-8 sodium azide**REL Ceiling limit value: 0.3\*\* mg/m<sup>3</sup>, 0.1\* ppm  
\*as HN<sub>3</sub>; \*\*as NaN<sub>3</sub>; SkinTLV Ceiling limit value: 0.29\*\* mg/m<sup>3</sup>, 0.11\* ppm  
\*as HN<sub>3</sub> vapor \*\*as NaN<sub>3</sub>

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

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

Form: Suspension

Color: Colorless

· **Odor:** Odorless· **Odor threshold:** Not determined.· **pH-value at 20 °C:** 7.4· **Change in condition**

Melting point/Melting range: undetermined

Boiling point/Boiling range: 100 °C

· **Flash point:** Not applicable· **Flammability (solid, gaseous)** Not applicable.· **Ignition temperature:** 150 °C· **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.· **Vapor density** Not determined.

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|                                                   |                                            |
|---------------------------------------------------|--------------------------------------------|
| · <b>Evaporation rate</b>                         | Not determined.                            |
| · <b>Solubility in / Miscibility with Water:</b>  | Partly soluble                             |
| · <b>Partition coefficient (n-octanol/water):</b> | Not determined.                            |
| · <b>Viscosity:</b><br>dynamic:                   | Not determined.                            |
| kinematic:                                        | Not determined.                            |
| · <b>Solvent content:</b><br>Organic solvents:    | 0.0 %                                      |
| Water:                                            | >70 %                                      |
| · <b>Solids content:</b>                          | <30.0 %                                    |
| · <b>Other information</b>                        | 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**  
This product contains sodium azide. Sodium azide can react with copper, brass, lead, and solder in piping systems to form explosive compounds of lead azide and copper azide.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:**  
This product contains sodium azide. Sodium azide can react with copper, brass, lead, and solder in piping systems to form explosive compounds of lead azide and copper azide.
- **Hazardous decomposition products:** No dangerous decomposition products known

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values for hazardous components per OSHA criteria:**

### 50-70-4 D-glucitol

Oral LD50 15900 mg/kg (rat)

### 1185-53-1 Tris-HCl

Oral LD50 5900 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritant effect.
- **Sensitization:** Sensitization possible through skin contact.

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- **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

- **Toxicity**

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

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:** Not known to be hazardous to water.

- **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** Dispose of waste in accordance to applicable national, regional, or local regulations.

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

- **UN-Number**

- **ADR, ADN, IMDG, IATA**

Void

- **UN proper shipping name**

- **ADR, ADN, IMDG, IATA**

Void

- **Transport hazard class(es)**

- **ADR, ADN, IMDG, IATA**

- **Class**

Void

- **Packing group**

- **ADR, IMDG, IATA**

Void

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- |                                                                                  |                 |
|----------------------------------------------------------------------------------|-----------------|
| · <b>Environmental hazards:</b>                                                  | Not applicable. |
| · <b>Special precautions for user</b>                                            | Not applicable. |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |

## 15 Regulatory information

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

- **Section 302/304 (40CFR355.30 / 40CFR355.40):**

|            |              |
|------------|--------------|
| 26628-22-8 | sodium azide |
|------------|--------------|

- **Section 313 (40CFR372.65):**

|            |              |
|------------|--------------|
| 26628-22-8 | sodium azide |
|------------|--------------|

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

|         |               |
|---------|---------------|
| 57-50-1 | sucrose, pure |
|---------|---------------|

|         |            |
|---------|------------|
| 50-70-4 | D-glucitol |
|---------|------------|

|           |          |
|-----------|----------|
| 1185-53-1 | Tris-HCl |
|-----------|----------|

|           |                 |
|-----------|-----------------|
| 7647-14-5 | sodium chloride |
|-----------|-----------------|

|           |                      |
|-----------|----------------------|
| 9048-46-8 | Bovine Serum Albumin |
|-----------|----------------------|

|           |                  |
|-----------|------------------|
| 1310-73-2 | sodium hydroxide |
|-----------|------------------|

|           |                 |
|-----------|-----------------|
| 9011-18-1 | Dextran Sulfate |
|-----------|-----------------|

|           |          |
|-----------|----------|
| 9005-64-5 | Tween 20 |
|-----------|----------|

|            |              |
|------------|--------------|
| 26628-22-8 | sodium azide |
|------------|--------------|

|           |       |
|-----------|-------|
| 7732-18-5 | water |
|-----------|-------|

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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

|         |               |    |
|---------|---------------|----|
| 57-50-1 | sucrose, pure | A4 |
|---------|---------------|----|

|            |              |    |
|------------|--------------|----|
| 26628-22-8 | sodium azide | A4 |
|------------|--------------|----|

- **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.

- **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.

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· **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** 05/09/2017 / -

· **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

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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

Acute Tox. 2: Acute toxicity – Category 2

Acute Tox. 3: Acute toxicity – Category 3

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Irrit. 2: Skin corrosion/irritation – Category 2

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

Skin Sens. 1: Skin sensitisation – Category 1

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