

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

Printing date 01/26/2015

Reviewed on 12/24/2014

**1 Identification**

- **Product identifier**
- **Trade name:** Bio-Plex™ CAL 2
- **Catalog or product number:** 171203066, 9704053
- **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**

- **Classification of the substance or mixture**  
The product is not classified according to the Globally Harmonized System (GHS).

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- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **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.

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

7647-14-5	sodium chloride	0.1-1.0%
7558-80-7	Sodium dihydrogen phosphate	0.1-1.0%
9048-46-8	Bovine Serum Albumin	0.01-0.1%

(Contd. on page 2)

## Safety Data Sheet

acc. to OSHA HCS

Printing date 01/26/2015

Reviewed on 12/24/2014

Trade name: Bio-Plex™ CAL 2

(Contd. of page 1)

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**  
CO<sub>2</sub>, 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.

### 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.

(Contd. on page 3)

USA

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

Printing date 01/26/2015

Reviewed on 12/24/2014

Trade name: **Bio-Plex™ CAL 2**

(Contd. of page 2)

· **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:**

**26628-22-8 sodium azide**

REL ( ) Short-term value: C 0.3\*\* mg/m<sup>3</sup>, C 0.1\* ppm  
\*as HN<sub>3</sub>; \*\*as NaN<sub>3</sub>; Skin

TLV ( ) Short-term value: C 0.29\*\* mg/m<sup>3</sup>, C 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** 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

**9 Physical and chemical properties**

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

· **General Information**

· **Appearance:**

Form: Liquid

Color: Colorless

· **Odor:** Odorless

· **Odour threshold:** Not determined.

· **pH-value at 20 °C:** 7.4

· **Change in condition**

Melting point/Melting range: 0 °C

Boiling point/Boiling range: undetermined

· **Flash point:** Not applicable

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

· **Ignition temperature:**

Decomposition temperature: Not determined.

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

(Contd. on page 4)

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

Printing date 01/26/2015

Reviewed on 12/24/2014

Trade name: **Bio-Plex™ CAL 2**

(Contd. of page 3)

· **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.*

· **Solubility in / Miscibility with Water:** *Fully miscible*

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

· **Viscosity:**  
*dynamic: Not determined.*  
*kinematic: Not determined.*

· **Solvent content:**  
*Organic solvents: 0.0 %*  
*Water: 98.8 %*  
 · **Other information** *No further relevant information available.*

**10 Stability and reactivity**

- **Reactivity**
- **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:**
- **Primary irritant effect:**  
*on the skin: No irritant effect.*  
*on the eye: No irritant effect.*  
*Irritant effect.*
- **Sensitization:** *No sensitizing effects known.*

(Contd. on page 5)

**Safety Data Sheet**  
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Reviewed on 12/24/2014

Trade name: **Bio-Plex™ CAL 2**

(Contd. of page 4)

· **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.

· **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.

**14 Transport information**

· **UN-Number**

· **DOT, ADR, ADN, IMDG, IATA**

Void

· **UN proper shipping name**

· **DOT, ADR, ADN, IMDG, IATA**

Void

(Contd. on page 6)

**Safety Data Sheet**  
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Reviewed on 12/24/2014

Trade name: **Bio-Plex™ CAL 2**

(Contd. of page 5)

· <b>Transport hazard class(es)</b>	
· <b>DOT, ADR, ADN, IMDG, IATA</b>	
· <b>Class</b>	Void
· <b>Packing group</b>	
· <b>DOT, ADR, IMDG, IATA</b>	Void
· <b>Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <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.
· <b>Transport/Additional information:</b>	Not dangerous according to the above specifications.
· <b>UN "Model Regulation":</b>	-

**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
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· **Section 313 (40CFR372.65):**

26628-22-8	sodium azide
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· **TSCA (Toxic Substances Control Act):**

7647-14-5	sodium chloride
7558-80-7	Sodium dihydrogen phosphate
9048-46-8	Bovine Serum Albumin
26628-22-8	sodium azide
9005-64-5	Tween 20
7732-18-5	water

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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

26628-22-8	sodium azide	A4
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· **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.

(Contd. on page 7)

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**Trade name: Bio-Plex™ CAL 2**

(Contd. of page 6)

· **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** 01/26/2015 / -

· **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)

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