

# KIT SAFETY DATA SHEET



**Kit Product Name** Bio-Plex Pro Mouse Diabetes 8-Plex Assay  
**Kit Catalog Number(s)** 171F7001M, 171F7002M, 171F7010M

**Revision date** 13-Feb-2024

## Kit Contents

| Catalog Number(s)   | Product Name                             |
|---|--|
| 9723892, 9703892, 9704415, 10014822, 10014823                       | Bio-Plex Assay Buffer                    |
| 12002108, 12002109, 12005854  | Mouse HP DAD                             |
| 171170001, 10014625   | Bio-Plex Pro Mouse Diabetes Standard     |
| 10010399  | Bio-Plex Mouse Diabetes 8-Plex Detection |
| 171304040, 10027955, 12006121, 12005850                             | Bio-Plex Pro Assays 10X Wash Buffer      |
| 10010394  | Bio-Plex Pro Mouse Diabetes 8-Plex Beads |
| 10014641, 9704423, 9703895, 171305043, 10022628, 10041561, 12005851 | Bio-Plex Sample Diluent                  |
| 9703888, 9704424, 171305042, 171304080M, 10022368, 12005853         | Bio-Plex Standard Diluent                |
| 171304501, 9704418, 9703887, 9703897                                | Streptavidin-PE                          |



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)

Revision date 18-Oct-2022

Revision Number 1.1

## 1. Identification

### Product identifier

Product Name Bio-Plex Assay Buffer

### Other means of identification

Catalog Number(s) 9723892, 9703892, 9704415, 10014822, 10014823

### Recommended use of the chemical and restrictions on use

Recommended use Laboratory chemicals

Restrictions on use No information available

### Details of the supplier of the safety data sheet

#### **Corporate Headquarters**

Bio-Rad Laboratories Inc.  
1000 Alfred Nobel Drive  
Hercules, CA 94547  
USA

#### **Manufacturer Address**

Bio-Rad Laboratories, Life Science Group  
2000 Alfred Nobel Drive  
Hercules, California 94547  
USA

#### **Legal Entity / Contact Address**

Bio-Rad Laboratories (Canada) Ltd.  
1329 Meyerside Drive  
Mississauga, ON L5T 1C9  
Canada

#### **Technical Service**

1-800-361-1808  
support@bio-rad.com

### Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC Canada:1 (800) 424-9300

## 2. Hazard(s) identification

### Classification

Not classified

### Label elements

#### **Hazard statements**

Not classified.

### Other information

## 3. Composition/information on ingredients

**Substance**

Not applicable.

**Mixture**

The product contains no substances which at their given concentration, are considered to be hazardous to health

| Chemical name | CAS No       | Weight-%     | Hazardous Material Information Review Act registry number (HMIRA registry #) | Date HMIRA filed and date exemption granted (if applicable) |
|---------------|--------------|--------------|--|---|
| Water         | 7732-18-5    | 50 - 100     | -  |   |
| Trade secret  | Trade secret | 1 - 2.5      | -  |   |
| Trade secret  | Trade secret | 0.3 - 0.99   | -  |   |
| Trade secret  | Trade secret | 0.1 - 0.299  | -  |   |
| Trade secret  | Trade secret | 0.01 - 0.099 | -  |   |

**4. First-aid measures****Description of first aid measures**

|                       |  |
|-----------------------|--|
| <b>General advice</b> | No hazards which require special first aid measures.   |
| <b>Inhalation</b>     | Remove to fresh air.   |
| <b>Eye contact</b>    | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician. |
| <b>Skin contact</b>   | Wash skin with soap and water.   |
| <b>Ingestion</b>      | Rinse mouth thoroughly with water.   |

**Most important symptoms and effects, both acute and delayed**

|                 |                           |
|-----------------|---------------------------|
| <b>Symptoms</b> | No information available. |
|-----------------|---------------------------|

**Indication of any immediate medical attention and special treatment needed**

|                           |                        |
|---------------------------|------------------------|
| <b>Note to physicians</b> | Treat symptomatically. |
|---------------------------|------------------------|

**5. Fire-fighting measures**

|   |  |
|---|--|
| <b>Suitable Extinguishing Media</b>                   | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.                            |
| <b>Unsuitable extinguishing media</b>                 | No information available.  |
| <b>Specific hazards arising from the chemical</b>     | None known.  |
| <b>Explosion data</b>                                 |  |
| <b>Sensitivity to mechanical impact</b>               | None.  |
| <b>Sensitivity to static discharge</b>                | None.  |
| <b>Special protective equipment for fire-fighters</b> | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. |

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** See section 8 for more information.

### Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

## 7. Handling and storage

### Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Store according to product and label instructions.

## 8. Exposure controls/personal protection

### Control parameters

**Exposure Limits** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

| Chemical name | Alberta   | British Columbia                                     | Ontario                                      | Quebec   |
|---------------|---|--|--|--|
| Trade secret  | Ceiling: 0.29 mg/m <sup>3</sup><br>Ceiling: 0.11 ppm<br>STEL: 0.3 mg/m <sup>3</sup> | Ceiling: 0.29 mg/m <sup>3</sup><br>Ceiling: 0.11 ppm | CEV: 0.29 mg/m <sup>3</sup><br>CEV: 0.11 ppm | Ceiling: 0.29 mg/m <sup>3</sup><br>Ceiling: 0.11 ppm |

### Appropriate engineering controls

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Hand protection** Wear suitable gloves.

**Skin and body protection** Wear suitable protective clothing.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

|                |                          |
|----------------|--------------------------|
| Physical state | Liquid                   |
| Appearance     | aqueous solution         |
| Color          | colorless                |
| Odor           | Odorless                 |
| Odor threshold | No information available |

| <u>Property</u>                         | <u>Values</u>     | <u>Remarks • Method</u> |
|---|-------------------|-------------------------|
| pH                                      | 7.4               |                         |
| Melting point / freezing point          | 0 °C / 32 °F      |                         |
| Initial boiling point and boiling range | 100 °C / 212 °F   |                         |
| Flash point                             | No data available | None known              |
| Evaporation rate                        | No data available | None known              |
| Flammability                            | No data available | None known              |
| Flammability Limit in Air               |                   | None known              |
| Upper flammability or explosive limits  | No data available |                         |
| Lower flammability or explosive limits  | No data available |                         |
| Vapor pressure                          | No data available | None known              |
| Relative vapor density                  | No data available | None known              |
| Relative density                        | No data available | None known              |
| Water solubility                        | Miscible in water |                         |
| Solubility in other solvents            | No data available | None known              |
| Partition coefficient                   | No data available | None known              |
| Autoignition temperature                | No data available | None known              |
| Decomposition temperature               |                   | None known              |
| Kinematic viscosity                     | No data available | None known              |
| Dynamic viscosity                       | No data available | None known              |
| <u>Other information</u>                |                   |                         |
| Explosive properties                    | Not applicable.   |                         |
| Oxidizing properties                    | Not applicable.   |                         |
| Softening point                         | Not applicable    |                         |
| Molecular weight                        | Not applicable    |                         |
| VOC content                             | Not applicable    |                         |

## 10. Stability and reactivity

|                                    |   |
|------------------------------------|---|
| Reactivity                         | No information available.                 |
| Chemical stability                 | Stable under normal conditions.           |
| Possibility of hazardous reactions | None under normal processing.             |
| Conditions to avoid                | None known based on information supplied. |
| Incompatible materials             | None known based on information supplied. |
| Hazardous decomposition products   | None known based on information supplied. |

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

|              |   |
|--------------|---|
| Inhalation   | Specific test data for the substance or mixture is not available. |
| Eye contact  | Specific test data for the substance or mixture is not available. |
| Skin contact | Specific test data for the substance or mixture is not available. |
| Ingestion    | Specific test data for the substance or mixture is not available. |

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** No information available.

**Acute toxicity****Numerical measures of toxicity**

No information available

| Chemical name      | Oral LD50            | Dermal LD50              | Inhalation LC50               |
|--------------------|----------------------|--------------------------|-------------------------------|
| Water<br>7732-18-5 | > 90 mL/kg ( Rat )   | -                        | -                             |
| Trade secret       | = 3 g/kg ( Rat )     | > 10000 mg/kg ( Rabbit ) | > 42 mg/L ( Rat ) 1 h         |
| Trade secret       | = 8290 mg/kg ( Rat ) | > 7940 mg/kg ( Rabbit )  | > 0.83 mg/L ( Rat ) 4 h       |
| Trade secret       | = 27 mg/kg ( Rat )   | = 20 mg/kg ( Rabbit )    | 0.054 - 0.52 mg/L ( Rat ) 4 h |

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation** Based on available data, the classification criteria are not met.

**Serious eye damage/eye irritation** Based on available data, the classification criteria are not met.

**Respiratory or skin sensitization** Based on available data, the classification criteria are not met.

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.

**Carcinogenicity** Based on available data, the classification criteria are not met.

**Reproductive toxicity** Based on available data, the classification criteria are not met.

**STOT - single exposure** Based on available data, the classification criteria are not met.

**STOT - repeated exposure** Based on available data, the classification criteria are not met.

**Aspiration hazard** Based on available data, the classification criteria are not met.

**12. Ecological information****Ecotoxicity**

| Chemical name | Algae/aquatic plants | Fish   | Toxicity to microorganisms | Crustacea  |
|---------------|----------------------|--|----------------------------|--|
| Trade secret  | -                    | LC50: 5560 - 6080mg/L (96h, <i>Lepomis macrochirus</i> )<br>LC50: =12946mg/L (96h, <i>Lepomis macrochirus</i> )<br>LC50: 6020 - 7070mg/L (96h, <i>Pimephales promelas</i> )<br>LC50: =7050mg/L (96h, <i>Pimephales promelas</i> )<br>LC50: 6420 - 6700mg/L (96h, <i>Pimephales promelas</i> )<br>LC50: 4747 - 7824mg/L (96h, <i>Oncorhynchus</i> ) | -                          | EC50: =1000mg/L (48h, <i>Daphnia magna</i> )<br>EC50: 340.7 - 469.2mg/L (48h, <i>Daphnia magna</i> ) |

|              |   |  |   |   |
|--------------|---|--|---|---|
|              |   | mykiss)  |   |   |
| Trade secret | - | LC50: =0.8mg/L (96h, Oncorhynchus mykiss)<br>LC50: =0.7mg/L (96h, Lepomis macrochirus)<br>LC50: =5.46mg/L (96h, Pimephales promelas) | - | - |

**Persistence and degradability** No information available.

**Bioaccumulation** No information available.

**Other adverse effects** No information available.

### 13. Disposal considerations

#### Disposal methods

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

### 14. Transport information

**TDG** Not regulated

**DOT** Not regulated

**IATA** Not regulated

### 15. Regulatory information

#### Safety, health and environmental regulations/legislation specific for the substance or mixture

#### International Regulations

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

#### International Inventories

Contact supplier for inventory compliance status

### 16. Other information

|             |                         |                       |                           |   |
|-------------|-------------------------|-----------------------|---------------------------|---|
| <b>NFPA</b> | <b>Health hazards</b> 0 | <b>Flammability</b> 0 | <b>Instability</b> 0      | <b>Physical and chemical properties</b> - |
| <b>HMIS</b> | <b>Health hazards</b> 0 | <b>Flammability</b> 0 | <b>Physical hazards</b> 0 | <b>Personal protection</b> X              |

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

|         |                             |      |                                  |
|---------|-----------------------------|------|----------------------------------|
| TWA     | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value         | *    | Skin designation                 |

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
EPA (Environmental Protection Agency)  
Acute Exposure Guideline Level(s) (AEGl(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
RTECS (Registry of Toxic Effects of Chemical Substances)  
World Health Organization

**Prepared By** Bio-Rad Laboratories, Environmental Health and Safety.

**Revision date** 18-Oct-2022

**Revision Note** Reformatted and updated existing information.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**





# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)

Revision date 02-Aug-2023

Revision Number 1.1

## 1. Identification

### Product identifier

Product Name Mouse HP DAD

### Other means of identification

Catalog Number(s) 12002108, 12002109, 12005854

### Recommended use of the chemical and restrictions on use

Recommended use Laboratory chemicals

Restrictions on use No information available

### Details of the supplier of the safety data sheet

#### **Corporate Headquarters**

Bio-Rad Laboratories Inc.  
1000 Alfred Nobel Drive  
Hercules, CA 94547  
USA

#### **Manufacturer Address**

Bio-Rad Laboratories, Life Science Group  
2000 Alfred Nobel Drive  
Hercules, California 94547  
USA

#### **Legal Entity / Contact Address**

Bio-Rad Laboratories (Canada) Ltd.  
1329 Meyerside Drive  
Mississauga, ON L5T 1C9  
Canada

#### **Technical Service**

1-800-361-1808  
support@bio-rad.com

### Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC Canada:1 (800) 424-9300

## 2. Hazard(s) identification

### Classification

Not classified

### Label elements

#### **Hazard statements**

Not classified.

### Other information

Contains animal source material. (Cattle).

### 3. Composition/information on ingredients

#### Substance

Not applicable.

#### Mixture

The product contains no substances which at their given concentration, are considered to be hazardous to health

### 4. First-aid measures

#### Description of first aid measures

|                |   |
|----------------|---|
| General advice | No hazards which require special first aid measures.  |
| Inhalation     | Remove to fresh air.  |
| Eye contact    | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.<br>Consult a physician. |
| Skin contact   | Wash skin with soap and water.  |
| Ingestion      | Rinse mouth thoroughly with water.  |

#### Most important symptoms and effects, both acute and delayed

|          |                           |
|----------|---------------------------|
| Symptoms | No information available. |
|----------|---------------------------|

#### Indication of any immediate medical attention and special treatment needed

|                    |                        |
|--------------------|------------------------|
| Note to physicians | Treat symptomatically. |
|--------------------|------------------------|

### 5. Fire-fighting measures

|  |   |
|--|---|
| Suitable Extinguishing Media                   | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.                               |
| Unsuitable extinguishing media                 | No information available.   |
| Specific hazards arising from the chemical     | None known.   |
| Explosion data                                 |   |
| Sensitivity to mechanical impact               | None.   |
| Sensitivity to static discharge                | None.   |
| Special protective equipment for fire-fighters | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.<br>Use personal protection equipment. |

### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

|                      |                                     |
|----------------------|-------------------------------------|
| Personal precautions | See section 8 for more information. |
|----------------------|-------------------------------------|

#### Methods and material for containment and cleaning up

|                         |   |
|-------------------------|---|
| Methods for containment | Prevent further leakage or spillage if safe to do so. |
| Methods for cleaning up | Pick up and transfer to properly labeled containers.  |

## 7. Handling and storage

### Precautions for safe handling

|                         |  |
|-------------------------|--|
| Advice on safe handling | Handle in accordance with good industrial hygiene and safety practice. |
|-------------------------|--|

### Conditions for safe storage, including any incompatibilities

|                    |  |
|--------------------|--|
| Storage Conditions | Store according to product and label instructions. |
|--------------------|--|

## 8. Exposure controls/personal protection

### Control parameters

|                 |   |
|-----------------|---|
| Exposure Limits | This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. |
|-----------------|---|

### Appropriate engineering controls

|                      |   |
|----------------------|---|
| Engineering controls | Showers<br>Eyewash stations<br>Ventilation systems. |
|----------------------|---|

### Individual protection measures, such as personal protective equipment

|                                |  |
|--------------------------------|--|
| Eye/face protection            | Wear safety glasses with side shields (or goggles).  |
| Hand protection                | Wear suitable gloves.  |
| Skin and body protection       | Wear suitable protective clothing.   |
| Respiratory protection         | No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. |
| General hygiene considerations | Handle in accordance with good industrial hygiene and safety practice.   |

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

|                |                          |
|----------------|--------------------------|
| Physical state | Liquid                   |
| Appearance     | aqueous solution         |
| Color          | amber                    |
| Odor           | Odorless                 |
| Odor threshold | No information available |

| <u>Property</u>                         | <u>Values</u>     | <u>Remarks • Method</u> |
|---|-------------------|-------------------------|
| pH                                      | 7.2               |                         |
| Melting point / freezing point          | No data available | None known              |
| Initial boiling point and boiling range | > 100 °C / 212 °F |                         |
| Flash point                             | No data available | None known              |

|  |                   |            |
|--|-------------------|------------|
| Evaporation rate                       | No data available | None known |
| Flammability                           | No data available | None known |
| Flammability Limit in Air              |                   | None known |
| Upper flammability or explosive limits | No data available |            |
| Lower flammability or explosive limits | No data available |            |
| Vapor pressure                         | No data available | None known |
| Relative vapor density                 | No data available | None known |
| Relative density                       | No data available | None known |
| Water solubility                       | Miscible in water |            |
| Solubility in other solvents           | No data available | None known |
| Partition coefficient                  | No data available | None known |
| Autoignition temperature               | No data available | None known |
| Decomposition temperature              |                   | None known |
| Kinematic viscosity                    | No data available | None known |
| Dynamic viscosity                      | No data available | None known |
| <b><u>Other information</u></b>        |                   |            |
| Explosive properties                   | Not applicable.   |            |
| Oxidizing properties                   | Not applicable.   |            |
| Softening point                        | Not applicable    |            |
| Molecular weight                       | Not applicable    |            |
| VOC content                            | Not applicable    |            |

## 10. Stability and reactivity

|                                    |   |
|------------------------------------|---|
| Reactivity                         | No information available.   |
| Chemical stability                 | Stable under normal conditions.   |
| Possibility of hazardous reactions | Avoid contact with metals. This product contains sodium azide. Sodium azide can react with copper, brass, lead, and solder in piping systems to form explosive compounds and toxic gases. |
| Conditions to avoid                | None known based on information supplied.   |
| Incompatible materials             | Metals.   |
| Hazardous decomposition products   | None known based on information supplied.   |

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

|              |   |
|--------------|---|
| Inhalation   | Specific test data for the substance or mixture is not available. |
| Eye contact  | Specific test data for the substance or mixture is not available. |
| Skin contact | Specific test data for the substance or mixture is not available. |
| Ingestion    | Specific test data for the substance or mixture is not available. |

### Symptoms related to the physical, chemical and toxicological characteristics

|          |                           |
|----------|---------------------------|
| Symptoms | No information available. |
|----------|---------------------------|

### Acute toxicity

#### Numerical measures of toxicity

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

|  |   |
|--|---|
| <b>Skin corrosion/irritation</b>         | Based on available data, the classification criteria are not met. |
| <b>Serious eye damage/eye irritation</b> | Based on available data, the classification criteria are not met. |
| <b>Respiratory or skin sensitization</b> | Based on available data, the classification criteria are not met. |
| <b>Germ cell mutagenicity</b>            | Based on available data, the classification criteria are not met. |
| <b>Carcinogenicity</b>                   | Based on available data, the classification criteria are not met. |
| <b>Reproductive toxicity</b>             | Based on available data, the classification criteria are not met. |
| <b>STOT - single exposure</b>            | Based on available data, the classification criteria are not met. |
| <b>STOT - repeated exposure</b>          | Based on available data, the classification criteria are not met. |
| <b>Aspiration hazard</b>                 | Based on available data, the classification criteria are not met. |

**12. Ecological information****Ecotoxicity**

|                                      |                           |
|--------------------------------------|---------------------------|
| <b>Persistence and degradability</b> | No information available. |
| <b>Bioaccumulation</b>               | No information available. |
| <b>Other adverse effects</b>         | No information available. |

**13. Disposal considerations****Disposal methods**

|  |  |
|--|--|
| <b>Waste from residues/unused products</b> | Flush pipes with water frequently if discarding solutions containing sodium azide into metal piping systems. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. |
| <b>Contaminated packaging</b>              | Do not reuse empty containers.   |

**14. Transport information**

|                    |               |
|--------------------|---------------|
| <b><u>TDG</u></b>  | Not regulated |
| <b><u>DOT</u></b>  | Not regulated |
| <b><u>IATA</u></b> | Not regulated |

**15. Regulatory information****Safety, health and environmental regulations/legislation specific for the substance or mixture****International Regulations**

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

**International Inventories**

Contact supplier for inventory compliance status

**16. Other information**

|             |                         |                       |                           |   |
|-------------|-------------------------|-----------------------|---------------------------|---|
| <b>NFPA</b> | <b>Health hazards</b> 0 | <b>Flammability</b> 0 | <b>Instability</b> 0      | <b>Physical and chemical properties -</b> |
| <b>HMIS</b> | <b>Health hazards</b> 0 | <b>Flammability</b> 0 | <b>Physical hazards</b> 0 | <b>Personal protection</b> X              |

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

|         |                             |      |                                  |
|---------|-----------------------------|------|----------------------------------|
| TWA     | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value         | *    | Skin designation                 |

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
 U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AELG(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal  
 Hazardous Substance Database  
 International Uniform Chemical Information Database (IUCLID)  
 Japan GHS Classification  
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
 NIOSH (National Institute for Occupational Safety and Health)  
 National Library of Medicine's ChemID Plus (NLM CIP)  
 National Library of Medicine's PubMed database (NLM PUBMED)  
 National Toxicology Program (NTP)  
 New Zealand's Chemical Classification and Information Database (CCID)  
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
 Organization for Economic Co-operation and Development Screening Information Data Set  
 RTECS (Registry of Toxic Effects of Chemical Substances)  
 World Health Organization

**Prepared By** Bio-Rad Laboratories, Environmental Health and Safety.

**Revision date** 02-Aug-2023

**Revision Note** Reformatted and updated existing information.

**Disclaimer**

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End of Safety Data Sheet



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)

Revision date 23-Aug-2023

Revision Number 1.1

## 1. Identification

### Product identifier

**Product Name** Bio-Plex Pro Mouse Diabetes Standard

### Other means of identification

**Catalog Number(s)** 171170001, 10014625

### Recommended use of the chemical and restrictions on use

**Recommended use** Laboratory chemicals

**Restrictions on use** No information available

### Details of the supplier of the safety data sheet

#### **Corporate Headquarters**

Bio-Rad Laboratories Inc.  
1000 Alfred Nobel Drive  
Hercules, CA 94547  
USA

#### **Manufacturer Address**

Bio-Rad Laboratories, Life Science Group  
2000 Alfred Nobel Drive  
Hercules, California 94547  
USA

#### **Legal Entity / Contact Address**

Bio-Rad Laboratories (Canada) Ltd.  
1329 Meyerside Drive  
Mississauga, ON L5T 1C9  
Canada

#### **Technical Service**

1-800-361-1808  
support@bio-rad.com

### Emergency telephone number

**24 Hour Emergency Phone Number** CHEMTREC Canada:1 (800) 424-9300

## 2. Hazard(s) identification

### Classification

Not classified

### Label elements

#### **Hazard statements**

Not classified.

### Other information

Contains animal source material. (Cattle).



### 3. Composition/information on ingredients

#### Substance

Not applicable.

#### Mixture

The product contains no substances which at their given concentration, are considered to be hazardous to health

### 4. First-aid measures

#### Description of first aid measures

|                |   |
|----------------|---|
| General advice | No hazards which require special first aid measures.  |
| Inhalation     | Remove to fresh air.  |
| Eye contact    | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.<br>Consult a physician. |
| Skin contact   | Wash skin with soap and water.  |
| Ingestion      | Rinse mouth thoroughly with water.  |

#### Most important symptoms and effects, both acute and delayed

|          |                           |
|----------|---------------------------|
| Symptoms | No information available. |
|----------|---------------------------|

#### Indication of any immediate medical attention and special treatment needed

|                    |                        |
|--------------------|------------------------|
| Note to physicians | Treat symptomatically. |
|--------------------|------------------------|

### 5. Fire-fighting measures

|  |   |
|--|---|
| Suitable Extinguishing Media                   | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.                               |
| Unsuitable extinguishing media                 | No information available.   |
| Specific hazards arising from the chemical     | None known.   |
| Explosion data                                 |   |
| Sensitivity to mechanical impact               | None.   |
| Sensitivity to static discharge                | None.   |
| Special protective equipment for fire-fighters | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.<br>Use personal protection equipment. |

### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

|                      |                                     |
|----------------------|-------------------------------------|
| Personal precautions | See section 8 for more information. |
|----------------------|-------------------------------------|

#### Methods and material for containment and cleaning up

|                         |   |
|-------------------------|---|
| Methods for containment | Prevent further leakage or spillage if safe to do so. |
| Methods for cleaning up | Pick up and transfer to properly labeled containers.  |

## 7. Handling and storage

### Precautions for safe handling

|                         |  |
|-------------------------|--|
| Advice on safe handling | Handle in accordance with good industrial hygiene and safety practice. |
|-------------------------|--|

### Conditions for safe storage, including any incompatibilities

|                    |  |
|--------------------|--|
| Storage Conditions | Store according to product and label instructions. |
|--------------------|--|

## 8. Exposure controls/personal protection

### Control parameters

|                 |   |
|-----------------|---|
| Exposure Limits | This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. |
|-----------------|---|

### Appropriate engineering controls

|                      |   |
|----------------------|---|
| Engineering controls | Showers<br>Eyewash stations<br>Ventilation systems. |
|----------------------|---|

### Individual protection measures, such as personal protective equipment

|                                |  |
|--------------------------------|--|
| Eye/face protection            | Wear safety glasses with side shields (or goggles).  |
| Hand protection                | Wear suitable gloves.  |
| Skin and body protection       | Wear suitable protective clothing.   |
| Respiratory protection         | No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. |
| General hygiene considerations | Handle in accordance with good industrial hygiene and safety practice.   |

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

|                |                          |
|----------------|--------------------------|
| Physical state | Solid                    |
| Appearance     | solid                    |
| Color          | white                    |
| Odor           | Odorless                 |
| Odor threshold | No information available |

| <u>Property</u>                         | <u>Values</u>       | <u>Remarks • Method</u> |
|---|---------------------|-------------------------|
| pH                                      |                     | None known              |
| Melting point / freezing point          | No data available   | None known              |
| Initial boiling point and boiling range | 1461 °C / 2661.8 °F |                         |
| Flash point                             | No data available   | None known              |

|  |                   |            |
|--|-------------------|------------|
| Evaporation rate                       | No data available | None known |
| Flammability                           | No data available | None known |
| Flammability Limit in Air              |                   | None known |
| Upper flammability or explosive limits | No data available |            |
| Lower flammability or explosive limits | No data available |            |
| Vapor pressure                         | No data available | None known |
| Relative vapor density                 | No data available | None known |
| Relative density                       | No data available | None known |
| Water solubility                       | Soluble in water  |            |
| Solubility in other solvents           | No data available | None known |
| Partition coefficient                  | No data available | None known |
| Autoignition temperature               | No data available | None known |
| Decomposition temperature              |                   | None known |
| Kinematic viscosity                    | No data available | None known |
| Dynamic viscosity                      | No data available | None known |
| <b>Other information</b>               |                   |            |
| Explosive properties                   | Not applicable.   |            |
| Oxidizing properties                   | Not applicable.   |            |
| Softening point                        | Not applicable    |            |
| Molecular weight                       | Not applicable    |            |
| VOC content                            | Not applicable    |            |

## 10. Stability and reactivity

|                                    |   |
|------------------------------------|---|
| Reactivity                         | No information available.                 |
| Chemical stability                 | Stable under normal conditions.           |
| Possibility of hazardous reactions | None under normal processing.             |
| Conditions to avoid                | None known based on information supplied. |
| Incompatible materials             | None known based on information supplied. |
| Hazardous decomposition products   | None known based on information supplied. |

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

|              |   |
|--------------|---|
| Inhalation   | Specific test data for the substance or mixture is not available. |
| Eye contact  | Specific test data for the substance or mixture is not available. |
| Skin contact | Specific test data for the substance or mixture is not available. |
| Ingestion    | Specific test data for the substance or mixture is not available. |

### Symptoms related to the physical, chemical and toxicological characteristics

|          |                           |
|----------|---------------------------|
| Symptoms | No information available. |
|----------|---------------------------|

### Acute toxicity

#### Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 33,333.30 mg/kg

#### Component Information

##### Delayed and immediate effects as well as chronic effects from short and long-term exposure

|  |   |
|--|---|
| <b>Skin corrosion/irritation</b>         | Based on available data, the classification criteria are not met. |
| <b>Serious eye damage/eye irritation</b> | Based on available data, the classification criteria are not met. |
| <b>Respiratory or skin sensitization</b> | Based on available data, the classification criteria are not met. |
| <b>Germ cell mutagenicity</b>            | Based on available data, the classification criteria are not met. |
| <b>Carcinogenicity</b>                   | Based on available data, the classification criteria are not met. |
| <b>Reproductive toxicity</b>             | Based on available data, the classification criteria are not met. |
| <b>STOT - single exposure</b>            | Based on available data, the classification criteria are not met. |
| <b>STOT - repeated exposure</b>          | Based on available data, the classification criteria are not met. |
| <b>Aspiration hazard</b>                 | Based on available data, the classification criteria are not met. |

## 12. Ecological information

#### Ecotoxicity

|                                      |                                    |
|--------------------------------------|------------------------------------|
| <b>Persistence and degradability</b> | No information available.          |
| <b>Bioaccumulation</b>               | There is no data for this product. |
| <b>Other adverse effects</b>         | No information available.          |

## 13. Disposal considerations

#### Disposal methods

|  |   |
|--|---|
| <b>Waste from residues/unused products</b> | Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. |
| <b>Contaminated packaging</b>              | Do not reuse empty containers.  |

## 14. Transport information

|                    |               |
|--------------------|---------------|
| <u><b>TDG</b></u>  | Not regulated |
| <u><b>DOT</b></u>  | Not regulated |
| <u><b>IATA</b></u> | Not regulated |

**15. Regulatory information****Safety, health and environmental regulations/legislation specific for the substance or mixture****International Regulations**

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

**International Inventories**

Contact supplier for inventory compliance status

**16. Other information**

|                    |                         |                       |                           |   |
|--------------------|-------------------------|-----------------------|---------------------------|---|
| <b><u>NFPA</u></b> | <b>Health hazards</b> 0 | <b>Flammability</b> 0 | <b>Instability</b> 0      | <b>Physical and chemical properties -</b> |
| <b><u>HMIS</u></b> | <b>Health hazards</b> 0 | <b>Flammability</b> 0 | <b>Physical hazards</b> 0 | <b>Personal protection</b> X              |

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

|         |                             |      |                                  |
|---------|-----------------------------|------|----------------------------------|
| TWA     | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value         | *    | Skin designation                 |

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
 U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AELG(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal  
 Hazardous Substance Database  
 International Uniform Chemical Information Database (IUCLID)  
 Japan GHS Classification  
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
 NIOSH (National Institute for Occupational Safety and Health)  
 National Library of Medicine's ChemID Plus (NLM CIP)  
 National Library of Medicine's PubMed database (NLM PUBMED)  
 National Toxicology Program (NTP)  
 New Zealand's Chemical Classification and Information Database (CCID)  
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
 Organization for Economic Co-operation and Development Screening Information Data Set  
 RTECS (Registry of Toxic Effects of Chemical Substances)  
 World Health Organization

**Prepared By** Bio-Rad Laboratories, Environmental Health and Safety.

**Revision date** 23-Aug-2023

**Revision Note** Reformatted and updated existing information.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**



# SAFETY DATA SHEET

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Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)

Revision date 23-Aug-2023

Revision Number 1.1

## 1. Identification

### Product identifier

**Product Name** Bio-Plex Mouse Diabetes 8-Plex Detection

### Other means of identification

**Catalog Number(s)** 10010399

### Recommended use of the chemical and restrictions on use

**Recommended use** Laboratory chemicals

**Restrictions on use** No information available

### Details of the supplier of the safety data sheet

#### **Corporate Headquarters**

Bio-Rad Laboratories Inc.  
1000 Alfred Nobel Drive  
Hercules, CA 94547  
USA

#### **Manufacturer Address**

Bio-Rad Laboratories, Life Science Group  
2000 Alfred Nobel Drive  
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#### **Legal Entity / Contact Address**

Bio-Rad Laboratories (Canada) Ltd.  
1329 Meyerside Drive  
Mississauga, ON L5T 1C9  
Canada

#### **Technical Service**

1-800-361-1808  
support@bio-rad.com

### Emergency telephone number

**24 Hour Emergency Phone Number** CHEMTREC Canada:1 (800) 424-9300

## 2. Hazard(s) identification

### Classification

Skin sensitization

Category 1A

### Label elements

#### **Warning**

#### **Hazard statements**

May cause an allergic skin reaction



**Precautionary Statements - Prevention**

Avoid breathing dust/fume/gas/mist/vapors/spray  
Contaminated work clothing should not be allowed out of the workplace  
Wear protective gloves/protective clothing/eye protection/face protection

**Skin**

IF ON SKIN: Wash with plenty of water and soap  
If skin irritation or rash occurs: Get medical advice/attention  
Take off contaminated clothing and wash it before reuse

**Precautionary Statements - Disposal**

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

**Other information**

Harmful to aquatic life with long lasting effects. Harmful to aquatic life. Contains animal source material. (Cattle).

**3. Composition/information on ingredients****Substance**

Not applicable.

**Mixture**

The product contains no substances which at their given concentration, are considered to be hazardous to health

| Chemical name            | CAS No       | Weight-%     | Hazardous Material<br>Information Review Act<br>registry number<br>(HMIRA registry #) | Date HMIRA filed and<br>date exemption granted<br>(if applicable) |
|--------------------------|--------------|--------------|---|---|
| Water                    | 7732-18-5    | 50 - 100     | -   |   |
| Antibodies               | NO-CAS-81    | 10 - 20      | -   |   |
| Trade secret             | Trade secret | 0.3 - 0.99   | -   |   |
| Sodium phosphate dibasic | 7558-79-4    | 0.1 - 0.299  | -   |   |
| Trade secret             | Trade secret | 0.1 - 0.299  | -   |   |
| Trade secret             | Trade secret | 0.1 - 0.299  | -   |   |
| Trade secret             | Trade secret | 0.01 - 0.099 | -   |   |
| Trade secret             | Trade secret | 0.01 - 0.099 | -   |   |
| Trade secret             | Trade secret | 0.001 - 0.01 | -   |   |
| Trade secret             | Trade secret | 0.001 - 0.01 | -   |   |
| Trade secret             | Trade secret | 0.001 - 0.01 | -   |   |
| Trade secret             | Trade secret | 0.001 - 0.01 | -   |   |

**4. First-aid measures****Description of first aid measures****General advice**

Show this safety data sheet to the doctor in attendance.

**Inhalation**

Remove to fresh air.

**Eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.  
Consult a physician.

**Skin contact**

Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.



Ingestion Rinse mouth thoroughly with water.

**Most important symptoms and effects, both acute and delayed**

Symptoms Itching. Rashes. Hives.

**Indication of any immediate medical attention and special treatment needed**

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically.

## 5. Fire-fighting measures

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media No information available.

Specific hazards arising from the chemical Product is or contains a sensitizer. May cause sensitization by skin contact.

**Explosion data**

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

**Methods and material for containment and cleaning up**

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

## 7. Handling and storage

**Precautions for safe handling**

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

**Conditions for safe storage, including any incompatibilities**

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children. Store according to product and label instructions.

## 8. Exposure controls/personal protection

**Control parameters****Exposure Limits**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

| Chemical name | Alberta   | British Columbia                                     | Ontario                                      | Quebec   |
|---------------|---|--|--|--|
| Trade secret  | Ceiling: 0.29 mg/m <sup>3</sup><br>Ceiling: 0.11 ppm<br>STEL: 0.3 mg/m <sup>3</sup> | Ceiling: 0.29 mg/m <sup>3</sup><br>Ceiling: 0.11 ppm | CEV: 0.29 mg/m <sup>3</sup><br>CEV: 0.11 ppm | Ceiling: 0.29 mg/m <sup>3</sup><br>Ceiling: 0.11 ppm |

**Appropriate engineering controls****Engineering controls**

Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Wear safety glasses with side shields (or goggles).

**Hand protection**

Wear suitable gloves.

**Skin and body protection**

Wear suitable protective clothing.

**Respiratory protection**

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations**

Handle in accordance with good industrial hygiene and safety practice.

**9. Physical and chemical properties****Information on basic physical and chemical properties**

|                |                          |
|----------------|--------------------------|
| Physical state | Liquid                   |
| Appearance     | aqueous solution         |
| Color          | colorless                |
| Odor           | Odorless                 |
| Odor threshold | No information available |

| <b><u>Property</u></b>                  | <b><u>Values</u></b> | <b><u>Remarks • Method</u></b> |
|---|----------------------|--------------------------------|
| pH                                      | 7.4                  |                                |
| Melting point / freezing point          | No data available    | None known                     |
| Initial boiling point and boiling range | > 100 °C / 212 °F    |                                |
| Flash point                             | No data available    | None known                     |
| Evaporation rate                        | No data available    | None known                     |
| Flammability                            | No data available    | None known                     |
| Flammability Limit in Air               |                      | None known                     |
| Upper flammability or explosive limits  | No data available    |                                |
| Lower flammability or explosive limits  | No data available    |                                |
| Vapor pressure                          | No data available    | None known                     |
| Relative vapor density                  | No data available    | None known                     |
| Relative density                        | No data available    | None known                     |
| Water solubility                        | Miscible in water    |                                |
| Solubility in other solvents            | No data available    | None known                     |
| Partition coefficient                   | No data available    | None known                     |
| Autoignition temperature                | No data available    | None known                     |
| Decomposition temperature               |                      | None known                     |
| Kinematic viscosity                     | No data available    | None known                     |
| Dynamic viscosity                       | No data available    | None known                     |

**Other information**

|                             |                 |
|-----------------------------|-----------------|
| <b>Explosive properties</b> | Not applicable. |
| <b>Oxidizing properties</b> | Not applicable. |
| <b>Softening point</b>      | Not applicable  |
| <b>Molecular weight</b>     | Not applicable  |
| <b>VOC content</b>          | Not applicable  |

**10. Stability and reactivity**

|   |   |
|---|---|
| <b>Reactivity</b>                         | No information available.                 |
| <b>Chemical stability</b>                 | Stable under normal conditions.           |
| <b>Possibility of hazardous reactions</b> | None under normal processing.             |
| <b>Conditions to avoid</b>                | None known based on information supplied. |
| <b>Incompatible materials</b>             | None known based on information supplied. |
| <b>Hazardous decomposition products</b>   | None known based on information supplied. |

**11. Toxicological information****Information on likely routes of exposure****Product Information**

|                     |  |
|---------------------|--|
| <b>Inhalation</b>   | Specific test data for the substance or mixture is not available.  |
| <b>Eye contact</b>  | Specific test data for the substance or mixture is not available.  |
| <b>Skin contact</b> | May cause sensitization by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons (based on components). |
| <b>Ingestion</b>    | Specific test data for the substance or mixture is not available.  |

**Symptoms related to the physical, chemical and toxicological characteristics**

|                 |                         |
|-----------------|-------------------------|
| <b>Symptoms</b> | Itching. Rashes. Hives. |
|-----------------|-------------------------|

**Acute toxicity****Numerical measures of toxicity****Component Information**

| Chemical name                         | Oral LD50            | Dermal LD50              | Inhalation LC50               |
|---------------------------------------|----------------------|--------------------------|-------------------------------|
| Water<br>7732-18-5                    | > 90 mL/kg ( Rat )   | -                        | -                             |
| Trade secret                          | = 3 g/kg ( Rat )     | > 10000 mg/kg ( Rabbit ) | > 42 mg/L ( Rat ) 1 h         |
| Sodium phosphate dibasic<br>7558-79-4 | = 17 g/kg ( Rat )    | -                        | -                             |
| Trade secret                          | = 8290 mg/kg ( Rat ) | > 7940 mg/kg ( Rabbit )  | > 0.83 mg/L ( Rat ) 4 h       |
| Trade secret                          | = 27 mg/kg ( Rat )   | = 20 mg/kg ( Rabbit )    | 0.054 - 0.52 mg/L ( Rat ) 4 h |
| Trade secret                          | = 2600 mg/kg ( Rat ) | -                        | -                             |

|              |                      |                          |                         |
|--------------|----------------------|--------------------------|-------------------------|
| Trade secret | = 3200 mg/kg ( Rat ) | -                        | > 0.83 mg/L ( Rat ) 4 h |
| Trade secret | = 53 mg/kg ( Rat )   | = 87.12 mg/kg ( Rabbit ) | -                       |

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

|  |   |
|--|---|
| <b>Skin corrosion/irritation</b>         | Based on available data, the classification criteria are not met. |
| <b>Serious eye damage/eye irritation</b> | Based on available data, the classification criteria are not met. |
| <b>Respiratory or skin sensitization</b> | May cause sensitization by skin contact.                          |
| <b>Germ cell mutagenicity</b>            | Based on available data, the classification criteria are not met. |
| <b>Carcinogenicity</b>                   | Based on available data, the classification criteria are not met. |
| <b>Reproductive toxicity</b>             | Based on available data, the classification criteria are not met. |
| <b>STOT - single exposure</b>            | Based on available data, the classification criteria are not met. |
| <b>STOT - repeated exposure</b>          | Based on available data, the classification criteria are not met. |
| <b>Aspiration hazard</b>                 | Based on available data, the classification criteria are not met. |

## 12. Ecological information

**Ecotoxicity** Harmful to aquatic life with long lasting effects.

| Chemical name | Algae/aquatic plants                                   | Fish  | Toxicity to microorganisms | Crustacea  |
|---------------|--|---|----------------------------|--|
| Trade secret  | -  | LC50: 5560 - 6080mg/L (96h, <i>Lepomis macrochirus</i> )<br>LC50: =12946mg/L (96h, <i>Lepomis macrochirus</i> )<br>LC50: 6020 - 7070mg/L (96h, <i>Pimephales promelas</i> )<br>LC50: =7050mg/L (96h, <i>Pimephales promelas</i> )<br>LC50: 6420 - 6700mg/L (96h, <i>Pimephales promelas</i> )<br>LC50: 4747 - 7824mg/L (96h, <i>Oncorhynchus mykiss</i> ) | -                          | EC50: =1000mg/L (48h, <i>Daphnia magna</i> )<br>EC50: 340.7 - 469.2mg/L (48h, <i>Daphnia magna</i> ) |
| Trade secret  | -  | LC50: =0.8mg/L (96h, <i>Oncorhynchus mykiss</i> )<br>LC50: =0.7mg/L (96h, <i>Lepomis macrochirus</i> )<br>LC50: =5.46mg/L (96h, <i>Pimephales promelas</i> )  | -                          | -  |
| Trade secret  | EC50: =2500mg/L (72h, <i>Desmodesmus subspicatus</i> ) | LC50: =1060mg/L (96h, <i>Lepomis macrochirus</i> )<br>LC50: 750 - 1020mg/L (96h, <i>Pimephales promelas</i> )   | -                          | EC50: =825mg/L (48h, <i>Daphnia magna</i> )<br>EC50: =83mg/L (48h, <i>Daphnia magna</i> )            |

**Persistence and degradability** No information available.

**Bioaccumulation** There is no data for this product.

**Component Information**

| Chemical name | Partition coefficient |
|---------------|-----------------------|
| Trade secret  | 0.7                   |

**Other adverse effects** No information available.

**13. Disposal considerations****Disposal methods**

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

**14. Transport information**

**TDG** Not regulated

**DOT** Not regulated

**IATA** Not regulated

**15. Regulatory information****Safety, health and environmental regulations/legislation specific for the substance or mixture****International Regulations**

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

**International Inventories**

Contact supplier for inventory compliance status

**16. Other information**

|             |                         |                       |                           |   |
|-------------|-------------------------|-----------------------|---------------------------|---|
| <b>NFPA</b> | <b>Health hazards</b> 2 | <b>Flammability</b> 0 | <b>Instability</b> 0      | <b>Physical and chemical properties -</b> |
| <b>HMIS</b> | <b>Health hazards</b> 2 | <b>Flammability</b> 0 | <b>Physical hazards</b> 0 | <b>Personal protection</b> X              |

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)  
 Ceiling Maximum limit value \* Skin designation

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
EPA (Environmental Protection Agency)  
Acute Exposure Guideline Level(s) (AEGl(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
RTECS (Registry of Toxic Effects of Chemical Substances)  
World Health Organization

**Prepared By** Bio-Rad Laboratories, Environmental Health and Safety.

**Revision date** 23-Aug-2023

**Revision Note** Reformatted and updated existing information.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)

Revision date 07-Feb-2024

Revision Number 2

## 1. Identification

### Product identifier

**Product Name** Bio-Plex Pro Assays 10X Wash Buffer

### Other means of identification

**Catalog Number(s)** 171304040, 10027955, 12006121, 12005850

### Recommended use of the chemical and restrictions on use

**Recommended use** Laboratory chemicals

**Restrictions on use** No information available

### Details of the supplier of the safety data sheet

#### **Corporate Headquarters**

Bio-Rad Laboratories Inc.  
1000 Alfred Nobel Drive  
Hercules, CA 94547  
USA

#### **Manufacturer Address**

Bio-Rad Laboratories, Life Science Group  
2000 Alfred Nobel Drive  
Hercules, California 94547  
USA

#### **Legal Entity / Contact Address**

Bio-Rad Laboratories (Canada) Ltd.  
1329 Meyerside Drive  
Mississauga, ON L5T 1C9  
Canada

#### **Technical Service**

1-800-361-1808  
support@bio-rad.com

### Emergency telephone number

**24 Hour Emergency Phone Number** CHEMTREC Canada:1 (800) 424-9300

## 2. Hazard(s) identification

### Classification

Not classified

### Label elements

#### **Hazard statements**

Not classified.

### Other information

## 3. Composition/information on ingredients

**Substance**

Not applicable.

**Mixture**

The product contains no substances which at their given concentration, are considered to be hazardous to health

**4. First-aid measures****Description of first aid measures**

|                       |   |
|-----------------------|---|
| <b>General advice</b> | No hazards which require special first aid measures.  |
| <b>Inhalation</b>     | Remove to fresh air.  |
| <b>Eye contact</b>    | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.<br>Consult a physician. |
| <b>Skin contact</b>   | Wash skin with soap and water.  |
| <b>Ingestion</b>      | Rinse mouth thoroughly with water.  |

**Most important symptoms and effects, both acute and delayed**

|                 |                           |
|-----------------|---------------------------|
| <b>Symptoms</b> | No information available. |
|-----------------|---------------------------|

**Indication of any immediate medical attention and special treatment needed**

|                           |                        |
|---------------------------|------------------------|
| <b>Note to physicians</b> | Treat symptomatically. |
|---------------------------|------------------------|

**5. Fire-fighting measures**

|   |   |
|---|---|
| <b>Suitable Extinguishing Media</b>                   | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.                               |
| <b>Unsuitable extinguishing media</b>                 | No information available.   |
| <b>Specific hazards arising from the chemical</b>     | None known.   |
| <b>Explosion data</b>                                 |   |
| <b>Sensitivity to mechanical impact</b>               | None.   |
| <b>Sensitivity to static discharge</b>                | None.   |
| <b>Special protective equipment for fire-fighters</b> | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.<br>Use personal protection equipment. |

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures**

|                             |                                     |
|-----------------------------|-------------------------------------|
| <b>Personal precautions</b> | See section 8 for more information. |
|-----------------------------|-------------------------------------|

**Methods and material for containment and cleaning up**

|                                |   |
|--------------------------------|---|
| <b>Methods for containment</b> | Prevent further leakage or spillage if safe to do so. |
|--------------------------------|---|



**Methods for cleaning up** Pick up and transfer to properly labeled containers.

## 7. Handling and storage

### Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Store according to product and label instructions.

## 8. Exposure controls/personal protection

### Control parameters

**Exposure Limits** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

### Appropriate engineering controls

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Hand protection** Wear suitable gloves.

**Skin and body protection** Wear suitable protective clothing.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

|                       |                          |
|-----------------------|--------------------------|
| <b>Physical state</b> | Liquid                   |
| <b>Appearance</b>     | aqueous solution         |
| <b>Color</b>          | colorless                |
| <b>Odor</b>           | Odorless                 |
| <b>Odor threshold</b> | No information available |

| <u>Property</u>                                | <u>Values</u>     | <u>Remarks • Method</u> |
|--|-------------------|-------------------------|
| <b>pH</b>                                      | 7.4               |                         |
| <b>Melting point / freezing point</b>          | No data available | None known              |
| <b>Initial boiling point and boiling range</b> | 100 °C / 212 °F   |                         |
| <b>Flash point</b>                             | No data available | None known              |
| <b>Evaporation rate</b>                        | No data available | None known              |
| <b>Flammability</b>                            | No data available | None known              |
| <b>Flammability Limit in Air</b>               |                   | None known              |

|  |                   |            |
|--|-------------------|------------|
| Upper flammability or explosive limits | No data available |            |
| Lower flammability or explosive limits | No data available |            |
| Vapor pressure                         | No data available | None known |
| Relative vapor density                 | No data available | None known |
| Relative density                       | No data available | None known |
| Water solubility                       | Miscible in water |            |
| Solubility in other solvents           | No data available | None known |
| Partition coefficient                  | No data available | None known |
| Autoignition temperature               | No data available | None known |
| Decomposition temperature              |                   | None known |
| Kinematic viscosity                    | No data available | None known |
| Dynamic viscosity                      | No data available | None known |
| <b>Other information</b>               |                   |            |
| Explosive properties                   | Not applicable.   |            |
| Oxidizing properties                   | Not applicable.   |            |
| Softening point                        | Not applicable    |            |
| Molecular weight                       | Not applicable    |            |
| VOC content                            | Not applicable    |            |

## 10. Stability and reactivity

|                                    |   |
|------------------------------------|---|
| Reactivity                         | No information available.   |
| Chemical stability                 | Stable under normal conditions.   |
| Possibility of hazardous reactions | Avoid contact with metals. This product contains sodium azide. Sodium azide can react with copper, brass, lead, and solder in piping systems to form explosive compounds and toxic gases. |
| Conditions to avoid                | None known based on information supplied.   |
| Incompatible materials             | Metals.   |
| Hazardous decomposition products   | None known based on information supplied.   |

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

|              |   |
|--------------|---|
| Inhalation   | Specific test data for the substance or mixture is not available. |
| Eye contact  | Specific test data for the substance or mixture is not available. |
| Skin contact | Specific test data for the substance or mixture is not available. |
| Ingestion    | Specific test data for the substance or mixture is not available. |

### Symptoms related to the physical, chemical and toxicological characteristics

|          |                           |
|----------|---------------------------|
| Symptoms | No information available. |
|----------|---------------------------|

### Acute toxicity

**Numerical measures of toxicity**  
No information available

The following values are calculated based on chapter 3.1 of the GHS document  
ATEmix (oral) 34,207.50 mg/kg

**Component Information****Delayed and immediate effects as well as chronic effects from short and long-term exposure**

|  |   |
|--|---|
| <b>Skin corrosion/irritation</b>         | Based on available data, the classification criteria are not met. |
| <b>Serious eye damage/eye irritation</b> | Based on available data, the classification criteria are not met. |
| <b>Respiratory or skin sensitization</b> | Based on available data, the classification criteria are not met. |
| <b>Germ cell mutagenicity</b>            | Based on available data, the classification criteria are not met. |
| <b>Carcinogenicity</b>                   | Based on available data, the classification criteria are not met. |
| <b>Reproductive toxicity</b>             | Based on available data, the classification criteria are not met. |
| <b>STOT - single exposure</b>            | Based on available data, the classification criteria are not met. |
| <b>STOT - repeated exposure</b>          | Based on available data, the classification criteria are not met. |
| <b>Aspiration hazard</b>                 | Based on available data, the classification criteria are not met. |

**12. Ecological information****Ecotoxicity**

|                                      |                           |
|--------------------------------------|---------------------------|
| <b>Persistence and degradability</b> | No information available. |
| <b>Bioaccumulation</b>               | No information available. |
| <b>Other adverse effects</b>         | No information available. |

**13. Disposal considerations****Disposal methods**

|  |  |
|--|--|
| <b>Waste from residues/unused products</b> | Flush pipes with water frequently if discarding solutions containing sodium azide into metal piping systems. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. |
| <b>Contaminated packaging</b>              | Do not reuse empty containers.   |

**14. Transport information**

|                    |               |
|--------------------|---------------|
| <b><u>TDG</u></b>  | Not regulated |
| <b><u>DOT</u></b>  | Not regulated |
| <b><u>IATA</u></b> | Not regulated |

**15. Regulatory information****Safety, health and environmental regulations/legislation specific for the substance or mixture****International Regulations****The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable**The Stockholm Convention on Persistent Organic Pollutants** Not applicable**The Rotterdam Convention** Not applicable**International Inventories**

Contact supplier for inventory compliance status

**16. Other information**

|             |                         |                       |                           |   |
|-------------|-------------------------|-----------------------|---------------------------|---|
| <b>NFPA</b> | <b>Health hazards</b> 0 | <b>Flammability</b> 0 | <b>Instability</b> 0      | <b>Physical and chemical properties -</b> |
| <b>HMIS</b> | <b>Health hazards</b> 0 | <b>Flammability</b> 0 | <b>Physical hazards</b> 0 | <b>Personal protection</b> X              |

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

|         |                             |      |                                  |
|---------|-----------------------------|------|----------------------------------|
| TWA     | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value         | *    | Skin designation                 |

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
 U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AELG(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal  
 Hazardous Substance Database  
 International Uniform Chemical Information Database (IUCLID)  
 Japan GHS Classification  
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
 NIOSH (National Institute for Occupational Safety and Health)  
 National Library of Medicine's ChemID Plus (NLM CIP)  
 National Library of Medicine's PubMed database (NLM PUBMED)  
 National Toxicology Program (NTP)  
 New Zealand's Chemical Classification and Information Database (CCID)  
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
 Organization for Economic Co-operation and Development Screening Information Data Set  
 RTECS (Registry of Toxic Effects of Chemical Substances)  
 World Health Organization

**Prepared By** Bio-Rad Laboratories, Environmental Health and Safety.**Revision date** 07-Feb-2024**Revision Note** SDS sections updated. 2. 12.**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)

Revision date 23-Aug-2023

Revision Number 1.1

## 1. Identification

### Product identifier

**Product Name** Bio-Plex Pro Mouse Diabetes 8-Plex Beads

### Other means of identification

**Catalog Number(s)** 10010394

### Recommended use of the chemical and restrictions on use

**Recommended use** Laboratory chemicals

**Restrictions on use** No information available

### Details of the supplier of the safety data sheet

#### **Corporate Headquarters**

Bio-Rad Laboratories Inc.  
1000 Alfred Nobel Drive  
Hercules, CA 94547  
USA

#### **Manufacturer Address**

Bio-Rad Laboratories, Life Science Group  
2000 Alfred Nobel Drive  
Hercules, California 94547  
USA

#### **Legal Entity / Contact Address**

Bio-Rad Laboratories (Canada) Ltd.  
1329 Meyerside Drive  
Mississauga, ON L5T 1C9  
Canada

#### **Technical Service**

1-800-361-1808  
support@bio-rad.com

### Emergency telephone number

**24 Hour Emergency Phone Number** CHEMTREC Canada:1 (800) 424-9300

## 2. Hazard(s) identification

### Classification

Skin sensitization

Category 1A

### Label elements

#### **Warning**

#### **Hazard statements**

May cause an allergic skin reaction



**Precautionary Statements - Prevention**

Avoid breathing dust/fume/gas/mist/vapors/spray  
Contaminated work clothing should not be allowed out of the workplace  
Wear protective gloves/protective clothing/eye protection/face protection

**Skin**

IF ON SKIN: Wash with plenty of water and soap  
If skin irritation or rash occurs: Get medical advice/attention  
Take off contaminated clothing and wash it before reuse

**Precautionary Statements - Disposal**

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

**Other information**

Harmful to aquatic life with long lasting effects. Harmful to aquatic life. Contains animal source material. (Cattle).

**3. Composition/information on ingredients****Substance**

Not applicable.

**Mixture**

| Chemical name  | CAS No       | Weight-%     | Hazardous Material<br>Information Review Act<br>registry number<br>(HMIRA registry #) | Date HMIRA filed and<br>date exemption granted<br>(if applicable) |
|----------------|--------------|--------------|---|---|
| Water          | 7732-18-5    | 50 - 100     | -   |   |
| Magnetic Beads | NO-CAS-23    | 20 - 35      | -   |   |
| Trade secret   | Trade secret | 10 - 20      | -   |   |
| Trade secret   | Trade secret | 5 - 10       | -   |   |
| Trade secret   | Trade secret | 5 - 10       | -   |   |
| Trade secret   | Trade secret | 1 - 2.5      | -   |   |
| Trade secret   | Trade secret | 0.1 - 0.299  | -   |   |
| Trade secret   | Trade secret | 0.1 - 0.299  | -   |   |
| Trade secret   | Trade secret | 0.1 - 0.299  | -   |   |
| Antibodies     | NO-CAS-81    | 0.1 - 0.299  | -   |   |
| Trade secret   | Trade secret | 0.01 - 0.099 | -   |   |
| Trade secret   | Trade secret | 0.001 - 0.01 | -   |   |
| Trade secret   | Trade secret | 0.001 - 0.01 | -   |   |

**4. First-aid measures****Description of first aid measures****General advice**

Show this safety data sheet to the doctor in attendance.

**Inhalation**

Remove to fresh air.

**Eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.  
Consult a physician.

**Skin contact**

Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.

**Ingestion** Rinse mouth thoroughly with water.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** Itching. Rashes. Hives.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** May cause sensitization in susceptible persons. Treat symptomatically.

## 5. Fire-fighting measures

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media** No information available.

**Specific hazards arising from the chemical** Product is or contains a sensitizer. May cause sensitization by skin contact.

**Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**Special protective equipment for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

## 7. Handling and storage

**Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children. Store according to product and label instructions.

## 8. Exposure controls/personal protection



**Control parameters****Exposure Limits**

| Chemical name | Alberta   | British Columbia                                      | Ontario                                      | Quebec   |
|---------------|---|---|--|--|
| Trade secret  | TWA: 10 mg/m <sup>3</sup>   | TWA: 10 mg/m <sup>3</sup><br>TWA: 3 mg/m <sup>3</sup> | TWA: 10 mg/m <sup>3</sup>                    | TWA: 10 mg/m <sup>3</sup>                            |
| Trade secret  | Ceiling: 2 mg/m <sup>3</sup>  | Ceiling: 2 mg/m <sup>3</sup>                          | CEV: 2 mg/m <sup>3</sup>                     | Ceiling: 2 mg/m <sup>3</sup>                         |
| Trade secret  | Ceiling: 0.29 mg/m <sup>3</sup><br>Ceiling: 0.11 ppm<br>STEL: 0.3 mg/m <sup>3</sup> | Ceiling: 0.29 mg/m <sup>3</sup><br>Ceiling: 0.11 ppm  | CEV: 0.29 mg/m <sup>3</sup><br>CEV: 0.11 ppm | Ceiling: 0.29 mg/m <sup>3</sup><br>Ceiling: 0.11 ppm |

**Appropriate engineering controls**

**Engineering controls**                      Showers  
    Eyewash stations  
    Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**                      Wear safety glasses with side shields (or goggles).

**Hand protection**                              Wear suitable gloves.

**Skin and body protection**                      Wear suitable protective clothing.

**Respiratory protection**                      No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations**                      Handle in accordance with good industrial hygiene and safety practice.

**9. Physical and chemical properties****Information on basic physical and chemical properties**

**Physical state**                                      Liquid

**Appearance**                                      Dilute bead suspension in aqueous solution

**Color**    Opaque

**Odor**    Odorless

**Odor threshold**                                      No information available

| <b><u>Property</u></b>                         | <b><u>Values</u></b> | <b><u>Remarks • Method</u></b> |
|--|----------------------|--------------------------------|
| <b>pH</b>                                      | 7.4                  |                                |
| <b>Melting point / freezing point</b>          | No data available    | None known                     |
| <b>Initial boiling point and boiling range</b> | > 100 °C / 212 °F    |                                |
| <b>Flash point</b>                             | No data available    | None known                     |
| <b>Evaporation rate</b>                        | No data available    | None known                     |
| <b>Flammability</b>                            | No data available    | None known                     |
| <b>Flammability Limit in Air</b>               |                      | None known                     |
| <b>Upper flammability or explosive limits</b>  | No data available    |                                |
| <b>Lower flammability or explosive limits</b>  | No data available    |                                |
| <b>Vapor pressure</b>                          | No data available    | None known                     |
| <b>Relative vapor density</b>                  | No data available    | None known                     |
| <b>Relative density</b>                        | No data available    | None known                     |
| <b>Water solubility</b>                        | Partially miscible   |                                |
| <b>Solubility in other solvents</b>            | No data available    | None known                     |
| <b>Partition coefficient</b>                   | No data available    | None known                     |
| <b>Autoignition temperature</b>                | No data available    | None known                     |
| <b>Decomposition temperature</b>               |                      | None known                     |

|                     |                   |            |
|---------------------|-------------------|------------|
| Kinematic viscosity | No data available | None known |
| Dynamic viscosity   | No data available | None known |

**Other information**

|                      |                 |
|----------------------|-----------------|
| Explosive properties | Not applicable. |
| Oxidizing properties | Not applicable. |
| Softening point      | Not applicable  |
| Molecular weight     | Not applicable  |
| VOC content          | Not applicable  |

**10. Stability and reactivity**

|                                    |   |
|------------------------------------|---|
| Reactivity                         | No information available.                 |
| Chemical stability                 | Stable under normal conditions.           |
| Possibility of hazardous reactions | None under normal processing.             |
| Conditions to avoid                | None known based on information supplied. |
| Incompatible materials             | None known based on information supplied. |
| Hazardous decomposition products   | None known based on information supplied. |

**11. Toxicological information****Information on likely routes of exposure****Product Information**

|              |  |
|--------------|--|
| Inhalation   | Specific test data for the substance or mixture is not available.  |
| Eye contact  | Specific test data for the substance or mixture is not available.  |
| Skin contact | May cause sensitization by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons (based on components). |
| Ingestion    | Specific test data for the substance or mixture is not available.  |

**Symptoms related to the physical, chemical and toxicological characteristics**

|          |                         |
|----------|-------------------------|
| Symptoms | Itching. Rashes. Hives. |
|----------|-------------------------|

**Acute toxicity****Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 50,476.20 mg/kg

**Component Information**

| Chemical name | Oral LD50             | Dermal LD50              | Inhalation LC50       |
|---------------|-----------------------|--------------------------|-----------------------|
| Water         | > 90 mL/kg ( Rat )    | -                        | -                     |
| 7732-18-5     |                       |                          |                       |
| Trade secret  | = 29700 mg/kg ( Rat ) | -                        | -                     |
| Trade secret  | = 3 g/kg ( Rat )      | > 10000 mg/kg ( Rabbit ) | > 42 mg/L ( Rat ) 1 h |
| Trade secret  | = 15900 mg/kg ( Rat ) | -                        | -                     |

|              |                     |                          |                               |
|--------------|---------------------|--------------------------|-------------------------------|
| Trade secret | = 325 mg/kg ( Rat ) | = 1350 mg/kg ( Rabbit )  | -                             |
| Trade secret | = 27 mg/kg ( Rat )  | = 20 mg/kg ( Rabbit )    | 0.054 - 0.52 mg/L ( Rat ) 4 h |
| Trade secret | = 53 mg/kg ( Rat )  | = 87.12 mg/kg ( Rabbit ) | -                             |

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

|  |   |
|--|---|
| <b>Skin corrosion/irritation</b>         | Based on available data, the classification criteria are not met. |
| <b>Serious eye damage/eye irritation</b> | Based on available data, the classification criteria are not met. |
| <b>Respiratory or skin sensitization</b> | May cause sensitization by skin contact.                          |
| <b>Germ cell mutagenicity</b>            | Based on available data, the classification criteria are not met. |
| <b>Carcinogenicity</b>                   | Based on available data, the classification criteria are not met. |
| <b>Reproductive toxicity</b>             | Based on available data, the classification criteria are not met. |
| <b>STOT - single exposure</b>            | Based on available data, the classification criteria are not met. |
| <b>STOT - repeated exposure</b>          | Based on available data, the classification criteria are not met. |
| <b>Target organ effects</b>              | Respiratory system, Eyes.   |
| <b>Aspiration hazard</b>                 | Based on available data, the classification criteria are not met. |

## 12. Ecological information

|                    |  |
|--------------------|--|
| <b>Ecotoxicity</b> | Harmful to aquatic life with long lasting effects. |
|--------------------|--|

| Chemical name | Algae/aquatic plants | Fish  | Toxicity to microorganisms | Crustacea  |
|---------------|----------------------|---|----------------------------|--|
| Trade secret  | -                    | LC50: 5560 - 6080mg/L (96h, Lepomis macrochirus)<br>LC50: =12946mg/L (96h, Lepomis macrochirus)<br>LC50: 6020 - 7070mg/L (96h, Pimephales promelas)<br>LC50: =7050mg/L (96h, Pimephales promelas)<br>LC50: 6420 - 6700mg/L (96h, Pimephales promelas)<br>LC50: 4747 - 7824mg/L (96h, Oncorhynchus mykiss) | -                          | EC50: =1000mg/L (48h, Daphnia magna)<br>EC50: 340.7 - 469.2mg/L (48h, Daphnia magna) |
| Trade secret  | -                    | LC50: =45.4mg/L (96h, Oncorhynchus mykiss)  | -                          | -  |
| Trade secret  | -                    | LC50: =0.8mg/L (96h, Oncorhynchus mykiss)<br>LC50: =0.7mg/L (96h, Lepomis macrochirus)<br>LC50: =5.46mg/L (96h, Pimephales promelas)  | -                          | -  |

|                                      |                           |
|--------------------------------------|---------------------------|
| <b>Persistence and degradability</b> | No information available. |
|--------------------------------------|---------------------------|

|                        |                                    |
|------------------------|------------------------------------|
| <b>Bioaccumulation</b> | There is no data for this product. |
|------------------------|------------------------------------|

**Component Information**

| Chemical name | Partition coefficient |
|---------------|-----------------------|
| Trade secret  | 0.7                   |

**Other adverse effects** No information available.

**13. Disposal considerations****Disposal methods**

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

**14. Transport information**

**TDG** Not regulated

**DOT** Not regulated

**IATA** Not regulated

**15. Regulatory information****Safety, health and environmental regulations/legislation specific for the substance or mixture****International Regulations**

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

**International Inventories**

Contact supplier for inventory compliance status

**16. Other information**

|             |                         |                       |                           |   |
|-------------|-------------------------|-----------------------|---------------------------|---|
| <b>NFPA</b> | <b>Health hazards</b> 2 | <b>Flammability</b> 0 | <b>Instability</b> 0      | <b>Physical and chemical properties</b> - |
| <b>HMIS</b> | <b>Health hazards</b> 2 | <b>Flammability</b> 0 | <b>Physical hazards</b> 0 | <b>Personal protection</b> X              |

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)  
 Ceiling Maximum limit value \* Skin designation

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
EPA (Environmental Protection Agency)  
Acute Exposure Guideline Level(s) (AEGL(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
RTECS (Registry of Toxic Effects of Chemical Substances)  
World Health Organization

**Prepared By** Bio-Rad Laboratories, Environmental Health and Safety.

**Revision date** 23-Aug-2023

**Revision Note** Reformatted and updated existing information.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)

Revision date 17-May-2023

Revision Number 1.1

## 1. Identification

### Product identifier

**Product Name** Bio-Plex Sample Diluent

### Other means of identification

**Catalog Number(s)** 10014641, 9704423, 9703895, 171305043, 10022628, 10041561, 12005851

### Recommended use of the chemical and restrictions on use

**Recommended use** Laboratory chemicals

**Restrictions on use** No information available

### Details of the supplier of the safety data sheet

#### **Corporate Headquarters**

Bio-Rad Laboratories Inc.  
1000 Alfred Nobel Drive  
Hercules, CA 94547  
USA

#### **Manufacturer Address**

Bio-Rad Laboratories, Life Science Group  
2000 Alfred Nobel Drive  
Hercules, California 94547  
USA

#### **Legal Entity / Contact Address**

Bio-Rad Laboratories (Canada) Ltd.  
1329 Meyerside Drive  
Mississauga, ON L5T 1C9  
Canada

#### **Technical Service**

1-800-361-1808  
support@bio-rad.com

### Emergency telephone number

**24 Hour Emergency Phone Number** CHEMTREC Canada:1 (800) 424-9300

## 2. Hazard(s) identification

### Classification

Not classified

### Label elements

#### **Hazard statements**

Not classified.

### Other information

Contains animal source material. (Cattle).

### 3. Composition/information on ingredients

#### Substance

Not applicable.

#### Mixture

The product contains no substances which at their given concentration, are considered to be hazardous to health

| Chemical name | CAS No       | Weight-%     | Hazardous Material<br>Information Review Act<br>registry number<br>(HMIRA registry #) | Date HMIRA filed and<br>date exemption granted<br>(if applicable) |
|---------------|--------------|--------------|---|---|
| Water         | 7732-18-5    | 50 - 100     | -   |   |
| Trade secret  | Trade secret | 0.3 - 0.99   | -   |   |
| HBR 1 Blocker | NO-CAS-18    | 0.1 - 0.299  | -   |   |
| Trade secret  | Trade secret | 0.1 - 0.299  | -   |   |
| Trade secret  | Trade secret | 0.1 - 0.299  | -   |   |
| Trade secret  | Trade secret | 0.1 - 0.299  | -   |   |
| Trade secret  | Trade secret | 0.1 - 0.299  | -   |   |
| Trade secret  | Trade secret | 0.1 - 0.299  | -   |   |
| Trade secret  | Trade secret | 0.01 - 0.099 | -   |   |
| Trade secret  | Trade secret | 0.01 - 0.099 | -   |   |

### 4. First-aid measures

#### Description of first aid measures

|                       |   |
|-----------------------|---|
| <b>General advice</b> | No hazards which require special first aid measures.  |
| <b>Inhalation</b>     | Remove to fresh air.  |
| <b>Eye contact</b>    | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.<br>Consult a physician. |
| <b>Skin contact</b>   | Wash skin with soap and water.  |
| <b>Ingestion</b>      | Rinse mouth thoroughly with water.  |

#### Most important symptoms and effects, both acute and delayed

|                 |                           |
|-----------------|---------------------------|
| <b>Symptoms</b> | No information available. |
|-----------------|---------------------------|

#### Indication of any immediate medical attention and special treatment needed

|                           |                        |
|---------------------------|------------------------|
| <b>Note to physicians</b> | Treat symptomatically. |
|---------------------------|------------------------|

### 5. Fire-fighting measures

|   |   |
|---|---|
| <b>Suitable Extinguishing Media</b>               | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| <b>Unsuitable extinguishing media</b>             | No information available.   |
| <b>Specific hazards arising from the chemical</b> | None known.   |
| <b>Explosion data</b>                             |   |
| Sensitivity to mechanical impact                  | None.   |

**Sensitivity to static discharge** None.

**Special protective equipment for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** See section 8 for more information.

### Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

## 7. Handling and storage

### Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Store according to product and label instructions.

## 8. Exposure controls/personal protection

### Control parameters

**Exposure Limits** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

| Chemical name | Alberta   | British Columbia                                     | Ontario                                      | Quebec   |
|---------------|---|--|--|--|
| Trade secret  | Ceiling: 0.29 mg/m <sup>3</sup><br>Ceiling: 0.11 ppm<br>STEL: 0.3 mg/m <sup>3</sup> | Ceiling: 0.29 mg/m <sup>3</sup><br>Ceiling: 0.11 ppm | CEV: 0.29 mg/m <sup>3</sup><br>CEV: 0.11 ppm | Ceiling: 0.29 mg/m <sup>3</sup><br>Ceiling: 0.11 ppm |

### Appropriate engineering controls

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Hand protection** Wear suitable gloves.

**Skin and body protection** Wear suitable protective clothing.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.



## 9. Physical and chemical properties

### Information on basic physical and chemical properties

|                |                          |
|----------------|--------------------------|
| Physical state | Liquid                   |
| Appearance     | aqueous solution         |
| Color          | colorless                |
| Odor           | Odorless                 |
| Odor threshold | No information available |

| <u>Property</u>                         | <u>Values</u>     | <u>Remarks • Method</u> |
|---|-------------------|-------------------------|
| pH                                      | 7.4               |                         |
| Melting point / freezing point          | 0 °C / 32 °F      |                         |
| Initial boiling point and boiling range | 100 °C / 212 °F   |                         |
| Flash point                             | No data available | None known              |
| Evaporation rate                        | No data available | None known              |
| Flammability                            | No data available | None known              |
| Flammability Limit in Air               |                   | None known              |
| Upper flammability or explosive limits  | No data available |                         |
| Lower flammability or explosive limits  | No data available |                         |
| Vapor pressure                          | No data available | None known              |
| Relative vapor density                  | No data available | None known              |
| Relative density                        | No data available | None known              |
| Water solubility                        | Miscible in water |                         |
| Solubility in other solvents            | No data available | None known              |
| Partition coefficient                   | No data available | None known              |
| Autoignition temperature                | No data available | None known              |
| Decomposition temperature               |                   | None known              |
| Kinematic viscosity                     | No data available | None known              |
| Dynamic viscosity                       | No data available | None known              |

### Other information

|                      |                 |
|----------------------|-----------------|
| Explosive properties | Not applicable. |
| Oxidizing properties | Not applicable. |
| Softening point      | Not applicable  |
| Molecular weight     | Not applicable  |
| VOC content          | Not applicable  |

## 10. Stability and reactivity

|                                    |   |
|------------------------------------|---|
| Reactivity                         | No information available.                 |
| Chemical stability                 | Stable under normal conditions.           |
| Possibility of hazardous reactions | None under normal processing.             |
| Conditions to avoid                | None known based on information supplied. |
| Incompatible materials             | None known based on information supplied. |
| Hazardous decomposition products   | None known based on information supplied. |

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

**Inhalation** Specific test data for the substance or mixture is not available.

**Eye contact** Specific test data for the substance or mixture is not available.

**Skin contact** Specific test data for the substance or mixture is not available.

**Ingestion** Specific test data for the substance or mixture is not available.

#### Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** No information available.

#### Acute toxicity

#### Numerical measures of toxicity

| Chemical name      | Oral LD50                                 | Dermal LD50             | Inhalation LC50                     |
|--------------------|---|-------------------------|-------------------------------------|
| Water<br>7732-18-5 | > 90 mL/kg ( Rat )                        | -                       | -                                   |
| Trade secret       | = 8290 mg/kg ( Rat )                      | > 7940 mg/kg ( Rabbit ) | > 0.83 mg/L ( Rat ) 4 h             |
| Trade secret       | = 22 g/kg ( Rat )                         | > 20 g/kg ( Rabbit )    | -                                   |
| Trade secret       | = 5700 mg/kg ( Rat )<br>= 16 g/kg ( Rat ) | -                       | = 320 mg/m <sup>3</sup> ( Rat ) 4 h |
| Trade secret       | = 27 mg/kg ( Rat )                        | = 20 mg/kg ( Rabbit )   | 0.054 - 0.52 mg/L ( Rat ) 4 h       |

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Skin corrosion/irritation** Based on available data, the classification criteria are not met.

**Serious eye damage/eye irritation** Based on available data, the classification criteria are not met.

**Respiratory or skin sensitization** Based on available data, the classification criteria are not met.

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.

**Carcinogenicity** Based on available data, the classification criteria are not met.

**Reproductive toxicity** Based on available data, the classification criteria are not met.

**STOT - single exposure** Based on available data, the classification criteria are not met.

**STOT - repeated exposure** Based on available data, the classification criteria are not met.

**Aspiration hazard** Based on available data, the classification criteria are not met.

## 12. Ecological information

**Ecotoxicity** The environmental impact of this product has not been fully investigated.

| Chemical name | Algae/aquatic plants | Fish   | Toxicity to microorganisms | Crustacea |
|---------------|----------------------|--|----------------------------|-----------|
| Trade secret  | -                    | LC50: =0.8mg/L (96h, Oncorhynchus mykiss)<br>LC50: =0.7mg/L (96h, Lepomis macrochirus) | -                          | -         |

|  |  |   |  |  |
|--|--|---|--|--|
|  |  | LC50: =5.46mg/L (96h,<br>Pimephales promelas) |  |  |
|--|--|---|--|--|

**Persistence and degradability** No information available.

**Bioaccumulation** No information available.

| Chemical name | Partition coefficient |
|---------------|-----------------------|
| Trade secret  | -0.698                |

**Other adverse effects** No information available.

### 13. Disposal considerations

#### Disposal methods

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

### 14. Transport information

**TDG** Not regulated

**DOT** Not regulated

**IATA** Not regulated

### 15. Regulatory information

#### Safety, health and environmental regulations/legislation specific for the substance or mixture

#### International Regulations

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

#### International Inventories

Contact supplier for inventory compliance status

### 16. Other information

|             |                  |                |                    |                                    |
|-------------|------------------|----------------|--------------------|------------------------------------|
| <b>NFPA</b> | Health hazards 0 | Flammability 0 | Instability 0      | Physical and chemical properties - |
| <b>HMIS</b> | Health hazards 0 | Flammability 0 | Physical hazards 0 | Personal protection X              |

Key or legend to abbreviations and acronyms used in the safety data sheet

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

|         |                             |      |                                  |
|---------|-----------------------------|------|----------------------------------|
| TWA     | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value         | *    | Skin designation                 |

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
EPA (Environmental Protection Agency)  
Acute Exposure Guideline Level(s) (AEGL(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
RTECS (Registry of Toxic Effects of Chemical Substances)  
World Health Organization

**Prepared By** Bio-Rad Laboratories, Environmental Health and Safety.

**Revision date** 17-May-2023

**Revision Note** Reformatted and updated existing information.

**Disclaimer**

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**End of Safety Data Sheet**



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)

Revision date 17-May-2023

Revision Number 1.1

## 1. Identification

### Product identifier

**Product Name** Bio-Plex Standard Diluent

### Other means of identification

**Catalog Number(s)** 9703888, 9704424, 171305042, 171304080M, 10022368, 12005853

### Recommended use of the chemical and restrictions on use

**Recommended use** Laboratory chemicals

**Restrictions on use** No information available

### Details of the supplier of the safety data sheet

#### **Corporate Headquarters**

Bio-Rad Laboratories Inc.  
1000 Alfred Nobel Drive  
Hercules, CA 94547  
USA

#### **Manufacturer Address**

Bio-Rad Laboratories, Life Science Group  
2000 Alfred Nobel Drive  
Hercules, California 94547  
USA

#### **Legal Entity / Contact Address**

Bio-Rad Laboratories (Canada) Ltd.  
1329 Meyerside Drive  
Mississauga, ON L5T 1C9  
Canada

#### **Technical Service**

1-800-361-1808  
support@bio-rad.com

### Emergency telephone number

**24 Hour Emergency Phone Number** CHEMTREC Canada:1 (800) 424-9300

## 2. Hazard(s) identification

### Classification

Not classified

### Label elements

#### **Hazard statements**

Not classified.

### Other information

Contains animal source material. (Cattle).

### 3. Composition/information on ingredients

#### Substance

Not applicable.

#### Mixture

The product contains no substances which at their given concentration, are considered to be hazardous to health

| Chemical name | CAS No       | Weight-%     | Hazardous Material<br>Information Review Act<br>registry number<br>(HMIRA registry #) | Date HMIRA filed and<br>date exemption granted<br>(if applicable) |
|---------------|--------------|--------------|---|---|
| Water         | 7732-18-5    | 50 - 100     | -   |   |
| Trade secret  | Trade secret | 20 - 35      | -   |   |
| Trade secret  | Trade secret | 0.3 - 0.99   | -   |   |
| HBR 1 Blocker | NO-CAS-18    | 0.1 - 0.299  | -   |   |
| Trade secret  | Trade secret | 0.01 - 0.099 | -   |   |
| Trade secret  | Trade secret | 0.01 - 0.099 | -   |   |
| Trade secret  | Trade secret | 0.01 - 0.099 | -   |   |
| Trade secret  | Trade secret | 0.01 - 0.099 | -   |   |

### 4. First-aid measures

#### Description of first aid measures

|                       |   |
|-----------------------|---|
| <b>General advice</b> | No hazards which require special first aid measures.  |
| <b>Inhalation</b>     | Remove to fresh air.  |
| <b>Eye contact</b>    | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.<br>Consult a physician. |
| <b>Skin contact</b>   | Wash skin with soap and water.  |
| <b>Ingestion</b>      | Rinse mouth thoroughly with water.  |

#### Most important symptoms and effects, both acute and delayed

|                 |                           |
|-----------------|---------------------------|
| <b>Symptoms</b> | No information available. |
|-----------------|---------------------------|

#### Indication of any immediate medical attention and special treatment needed

|                           |                        |
|---------------------------|------------------------|
| <b>Note to physicians</b> | Treat symptomatically. |
|---------------------------|------------------------|

### 5. Fire-fighting measures

|   |   |
|---|---|
| <b>Suitable Extinguishing Media</b>               | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| <b>Unsuitable extinguishing media</b>             | No information available.   |
| <b>Specific hazards arising from the chemical</b> | None known.   |
| <b>Explosion data</b>                             |   |
| <b>Sensitivity to mechanical impact</b>           | None.   |
| <b>Sensitivity to static discharge</b>            | None.   |

**Special protective equipment for fire-fighters**

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures**

**Personal precautions** See section 8 for more information.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

**7. Handling and storage****Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Store according to product and label instructions.

**8. Exposure controls/personal protection****Control parameters**

**Exposure Limits** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

| Chemical name | Alberta   | British Columbia                                     | Ontario                                      | Quebec   |
|---------------|---|--|--|--|
| Trade secret  | Ceiling: 0.29 mg/m <sup>3</sup><br>Ceiling: 0.11 ppm<br>STEL: 0.3 mg/m <sup>3</sup> | Ceiling: 0.29 mg/m <sup>3</sup><br>Ceiling: 0.11 ppm | CEV: 0.29 mg/m <sup>3</sup><br>CEV: 0.11 ppm | Ceiling: 0.29 mg/m <sup>3</sup><br>Ceiling: 0.11 ppm |

**Appropriate engineering controls**

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Hand protection** Wear suitable gloves.

**Skin and body protection** Wear suitable protective clothing.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

|                |                          |
|----------------|--------------------------|
| Physical state | Liquid                   |
| Appearance     | aqueous solution         |
| Color          | colorless                |
| Odor           | Odorless                 |
| Odor threshold | No information available |

| Property                                | Values            | Remarks • Method |
|---|-------------------|------------------|
| pH                                      | 7.4               |                  |
| Melting point / freezing point          | No data available | None known       |
| Initial boiling point and boiling range | 100 °C / 212 °F   |                  |
| Flash point                             | No data available | None known       |
| Evaporation rate                        | No data available | None known       |
| Flammability                            | No data available | None known       |
| Flammability Limit in Air               |                   | None known       |
| Upper flammability or explosive limits  | No data available |                  |
| Lower flammability or explosive limits  | No data available |                  |
| Vapor pressure                          | No data available | None known       |
| Relative vapor density                  | No data available | None known       |
| Relative density                        | No data available | None known       |
| Water solubility                        | Miscible in water |                  |
| Solubility in other solvents            | No data available | None known       |
| Partition coefficient                   | No data available | None known       |
| Autoignition temperature                | No data available | None known       |
| Decomposition temperature               |                   | None known       |
| Kinematic viscosity                     | No data available | None known       |
| Dynamic viscosity                       | No data available | None known       |

### Other information

|                      |                 |
|----------------------|-----------------|
| Explosive properties | Not applicable. |
| Oxidizing properties | Not applicable. |
| Softening point      | Not applicable  |
| Molecular weight     | Not applicable  |
| VOC content          | Not applicable  |

## 10. Stability and reactivity

|                                    |   |
|------------------------------------|---|
| Reactivity                         | No information available.                 |
| Chemical stability                 | Stable under normal conditions.           |
| Possibility of hazardous reactions | None under normal processing.             |
| Conditions to avoid                | None known based on information supplied. |
| Incompatible materials             | None known based on information supplied. |
| Hazardous decomposition products   | None known based on information supplied. |

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

|            |   |
|------------|---|
| Inhalation | Specific test data for the substance or mixture is not available. |
|------------|---|



**Eye contact** Specific test data for the substance or mixture is not available.

**Skin contact** Specific test data for the substance or mixture is not available.

**Ingestion** Specific test data for the substance or mixture is not available.

#### Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** No information available.

#### Acute toxicity

#### Numerical measures of toxicity

| Chemical name      | Oral LD50                                 | Dermal LD50             | Inhalation LC50                     |
|--------------------|---|-------------------------|-------------------------------------|
| Water<br>7732-18-5 | > 90 mL/kg ( Rat )                        | -                       | -                                   |
| Trade secret       | = 8290 mg/kg ( Rat )                      | > 7940 mg/kg ( Rabbit ) | > 0.83 mg/L ( Rat ) 4 h             |
| Trade secret       | = 22 g/kg ( Rat )                         | > 20 g/kg ( Rabbit )    | -                                   |
| Trade secret       | = 5700 mg/kg ( Rat )<br>= 16 g/kg ( Rat ) | -                       | = 320 mg/m <sup>3</sup> ( Rat ) 4 h |
| Trade secret       | = 27 mg/kg ( Rat )                        | = 20 mg/kg ( Rabbit )   | 0.054 - 0.52 mg/L ( Rat ) 4 h       |

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Skin corrosion/irritation** Based on available data, the classification criteria are not met.

**Serious eye damage/eye irritation** Based on available data, the classification criteria are not met.

**Respiratory or skin sensitization** Based on available data, the classification criteria are not met.

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.

**Carcinogenicity** Based on available data, the classification criteria are not met.

**Reproductive toxicity** Based on available data, the classification criteria are not met.

**STOT - single exposure** Based on available data, the classification criteria are not met.

**STOT - repeated exposure** Based on available data, the classification criteria are not met.

**Aspiration hazard** Based on available data, the classification criteria are not met.

## 12. Ecological information

**Ecotoxicity** The environmental impact of this product has not been fully investigated.

| Chemical name | Algae/aquatic plants | Fish  | Toxicity to microorganisms | Crustacea |
|---------------|----------------------|---|----------------------------|-----------|
| Trade secret  | -                    | LC50: =0.8mg/L (96h, Oncorhynchus mykiss)<br>LC50: =0.7mg/L (96h, Lepomis macrochirus)<br>LC50: =5.46mg/L (96h, | -                          | -         |

|  |  |                      |  |  |
|--|--|----------------------|--|--|
|  |  | Pimephales promelas) |  |  |
|--|--|----------------------|--|--|

**Persistence and degradability** No information available.

**Bioaccumulation** No information available.

| Chemical name | Partition coefficient |
|---------------|-----------------------|
| Trade secret  | -0.698                |

**Other adverse effects** No information available.

### 13. Disposal considerations

#### Disposal methods

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

### 14. Transport information

**TDG** Not regulated

**DOT** Not regulated

**IATA** Not regulated

### 15. Regulatory information

#### Safety, health and environmental regulations/legislation specific for the substance or mixture

#### International Regulations

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

#### International Inventories

Contact supplier for inventory compliance status

### 16. Other information

|             |                  |                |                    |                                    |
|-------------|------------------|----------------|--------------------|------------------------------------|
| <b>NFPA</b> | Health hazards 0 | Flammability 0 | Instability 0      | Physical and chemical properties - |
| <b>HMIS</b> | Health hazards 0 | Flammability 0 | Physical hazards 0 | Personal protection X              |

#### Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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|                |  |           |  |
|----------------|--|-----------|--|
| TWA<br>Ceiling | TWA (time-weighted average)<br>Maximum limit value | STEL<br>* | STEL (Short Term Exposure Limit)<br>Skin designation |
|----------------|--|-----------|--|

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
EPA (Environmental Protection Agency)  
Acute Exposure Guideline Level(s) (AEGL(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
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National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
RTECS (Registry of Toxic Effects of Chemical Substances)  
World Health Organization

**Prepared By** Bio-Rad Laboratories, Environmental Health and Safety.

**Revision date** 17-May-2023

**Revision Note** Reformatted and updated existing information.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)

Revision date 17-May-2023

Revision Number 1.1

## 1. Identification

### Product identifier

Product Name Streptavidin-PE

### Other means of identification

Catalog Number(s) 171304501, 9704418, 9703887, 9703897

### Recommended use of the chemical and restrictions on use

Recommended use Laboratory chemicals

Restrictions on use No information available

### Details of the supplier of the safety data sheet

#### **Corporate Headquarters**

Bio-Rad Laboratories Inc.  
1000 Alfred Nobel Drive  
Hercules, CA 94547  
USA

#### **Manufacturer Address**

Bio-Rad Laboratories, Life Science Group  
2000 Alfred Nobel Drive  
Hercules, California 94547  
USA

#### **Legal Entity / Contact Address**

Bio-Rad Laboratories (Canada) Ltd.  
1329 Meyerside Drive  
Mississauga, ON L5T 1C9  
Canada

#### **Technical Service**

1-800-361-1808  
support@bio-rad.com

### Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC Canada:1 (800) 424-9300

## 2. Hazard(s) identification

### Classification

Not classified

### Label elements

#### **Hazard statements**

Not classified.

### Other information

### 3. Composition/information on ingredients

#### Substance

Not applicable.

#### Mixture

The product contains no substances which at their given concentration, are considered to be hazardous to health

| Chemical name | CAS No       | Weight-%     | Hazardous Material<br>Information Review Act<br>registry number<br>(HMIRA registry #) | Date HMIRA filed and<br>date exemption granted<br>(if applicable) |
|---------------|--------------|--------------|---|---|
| Water         | 7732-18-5    | 50 - 100     | -   |   |
| Trade secret  | Trade secret | 0.3 - 0.99   | -   |   |
| Trade secret  | Trade secret | 0.1 - 0.299  | -   |   |
| Trade secret  | Trade secret | 0.1 - 0.299  | -   |   |
| Trade secret  | Trade secret | 0.01 - 0.099 | -   |   |
| Avidin        | 9013-20-1    | 0.01 - 0.099 | -   |   |

### 4. First-aid measures

#### Description of first aid measures

|                       |   |
|-----------------------|---|
| <b>General advice</b> | No hazards which require special first aid measures.  |
| <b>Inhalation</b>     | Remove to fresh air.  |
| <b>Eye contact</b>    | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.<br>Consult a physician. |
| <b>Skin contact</b>   | Wash skin with soap and water.  |
| <b>Ingestion</b>      | Rinse mouth thoroughly with water.  |

#### Most important symptoms and effects, both acute and delayed

|                 |                           |
|-----------------|---------------------------|
| <b>Symptoms</b> | No information available. |
|-----------------|---------------------------|

#### Indication of any immediate medical attention and special treatment needed

|                           |                        |
|---------------------------|------------------------|
| <b>Note to physicians</b> | Treat symptomatically. |
|---------------------------|------------------------|

### 5. Fire-fighting measures

|   |   |
|---|---|
| <b>Suitable Extinguishing Media</b>               | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| <b>Unsuitable extinguishing media</b>             | No information available.   |
| <b>Specific hazards arising from the chemical</b> | None known.   |
| <b>Explosion data</b>                             |   |
| <b>Sensitivity to mechanical impact</b>           | None.   |
| <b>Sensitivity to static discharge</b>            | None.   |
| <b>Special protective equipment for</b>           | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.         |

fire-fighters Use personal protection equipment.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** See section 8 for more information.

### Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

## 7. Handling and storage

### Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Store according to product and label instructions.

## 8. Exposure controls/personal protection

### Control parameters

**Exposure Limits** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

| Chemical name | Alberta   | British Columbia                                     | Ontario                                      | Quebec   |
|---------------|---|--|--|--|
| Trade secret  | Ceiling: 0.29 mg/m <sup>3</sup><br>Ceiling: 0.11 ppm<br>STEL: 0.3 mg/m <sup>3</sup> | Ceiling: 0.29 mg/m <sup>3</sup><br>Ceiling: 0.11 ppm | CEV: 0.29 mg/m <sup>3</sup><br>CEV: 0.11 ppm | Ceiling: 0.29 mg/m <sup>3</sup><br>Ceiling: 0.11 ppm |

### Appropriate engineering controls

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Hand protection** Wear suitable gloves.

**Skin and body protection** Wear suitable protective clothing.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

|                |                          |
|----------------|--------------------------|
| Physical state | Liquid                   |
| Appearance     | aqueous solution         |
| Color          | colorless                |
| Odor           | Odorless                 |
| Odor threshold | No information available |

| Property                                | Values            | Remarks • Method |
|---|-------------------|------------------|
| pH                                      | 7.4               |                  |
| Melting point / freezing point          | 0 °C / 32 °F      |                  |
| Initial boiling point and boiling range | 100 °C / 212 °F   |                  |
| Flash point                             | No data available | None known       |
| Evaporation rate                        | No data available | None known       |
| Flammability                            | No data available | None known       |
| Flammability Limit in Air               |                   | None known       |
| Upper flammability or explosive limits  | No data available |                  |
| Lower flammability or explosive limits  | No data available |                  |
| Vapor pressure                          | No data available | None known       |
| Relative vapor density                  | No data available | None known       |
| Relative density                        | No data available | None known       |
| Water solubility                        | Miscible in water |                  |
| Solubility in other solvents            | No data available | None known       |
| Partition coefficient                   | No data available | None known       |
| Autoignition temperature                | No data available | None known       |
| Decomposition temperature               |                   | None known       |
| Kinematic viscosity                     | No data available | None known       |
| Dynamic viscosity                       | No data available | None known       |

### Other information

|                      |                 |
|----------------------|-----------------|
| Explosive properties | Not applicable. |
| Oxidizing properties | Not applicable. |
| Softening point      | Not applicable  |
| Molecular weight     | Not applicable  |
| VOC content          | Not applicable  |

## 10. Stability and reactivity

|                                    |   |
|------------------------------------|---|
| Reactivity                         | No information available.                 |
| Chemical stability                 | Stable under normal conditions.           |
| Possibility of hazardous reactions | None under normal processing.             |
| Conditions to avoid                | None known based on information supplied. |
| Incompatible materials             | None known based on information supplied. |
| Hazardous decomposition products   | None known based on information supplied. |

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

|             |   |
|-------------|---|
| Inhalation  | Specific test data for the substance or mixture is not available. |
| Eye contact | Specific test data for the substance or mixture is not available. |

**Skin contact** Specific test data for the substance or mixture is not available.

**Ingestion** Specific test data for the substance or mixture is not available.

#### Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** No information available.

#### Acute toxicity

#### **Numerical measures of toxicity**

| Chemical name      | Oral LD50            | Dermal LD50              | Inhalation LC50               |
|--------------------|----------------------|--------------------------|-------------------------------|
| Water<br>7732-18-5 | > 90 mL/kg ( Rat )   | -                        | -                             |
| Trade secret       | = 3 g/kg ( Rat )     | > 10000 mg/kg ( Rabbit ) | > 42 mg/L ( Rat ) 1 h         |
| Trade secret       | = 8290 mg/kg ( Rat ) | > 7940 mg/kg ( Rabbit )  | > 0.83 mg/L ( Rat ) 4 h       |
| Trade secret       | = 27 mg/kg ( Rat )   | = 20 mg/kg ( Rabbit )    | 0.054 - 0.52 mg/L ( Rat ) 4 h |

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Skin corrosion/irritation** Based on available data, the classification criteria are not met.

**Serious eye damage/eye irritation** Based on available data, the classification criteria are not met.

**Respiratory or skin sensitization** Based on available data, the classification criteria are not met.

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.

**Carcinogenicity** Based on available data, the classification criteria are not met.

**Reproductive toxicity** Based on available data, the classification criteria are not met.

**STOT - single exposure** Based on available data, the classification criteria are not met.

**STOT - repeated exposure** Based on available data, the classification criteria are not met.

**Aspiration hazard** Based on available data, the classification criteria are not met.

## **12. Ecological information**

#### **Ecotoxicity**

| Chemical name | Algae/aquatic plants | Fish   | Toxicity to microorganisms | Crustacea  |
|---------------|----------------------|--|----------------------------|--|
| Trade secret  | -                    | LC50: 5560 - 6080mg/L (96h, <i>Lepomis macrochirus</i> )<br>LC50: =12946mg/L (96h, <i>Lepomis macrochirus</i> )<br>LC50: 6020 - 7070mg/L (96h, <i>Pimephales promelas</i> )<br>LC50: =7050mg/L (96h, <i>Pimephales promelas</i> )<br>LC50: 6420 - 6700mg/L | -                          | EC50: =1000mg/L (48h, <i>Daphnia magna</i> )<br>EC50: 340.7 - 469.2mg/L (48h, <i>Daphnia magna</i> ) |



|              |   |  |   |   |
|--------------|---|--|---|---|
|              |   | (96h, Pimephales promelas)<br>LC50: 4747 - 7824mg/L<br>(96h, Oncorhynchus mykiss)  |   |   |
| Trade secret | - | LC50: =0.8mg/L (96h, Oncorhynchus mykiss)<br>LC50: =0.7mg/L (96h, Lepomis macrochirus)<br>LC50: =5.46mg/L (96h, Pimephales promelas) | - | - |

**Persistence and degradability** No information available.

**Bioaccumulation** No information available.

**Other adverse effects** No information available.

### 13. Disposal considerations

#### Disposal methods

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

### 14. Transport information

**TDG** Not regulated

**DOT** Not regulated

**IATA** Not regulated

### 15. Regulatory information

#### Safety, health and environmental regulations/legislation specific for the substance or mixture

#### International Regulations

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

#### International Inventories

Contact supplier for inventory compliance status

### 16. Other information

|             |                         |                       |                           |   |
|-------------|-------------------------|-----------------------|---------------------------|---|
| <b>NFPA</b> | <b>Health hazards</b> 0 | <b>Flammability</b> 0 | <b>Instability</b> 0      | <b>Physical and chemical properties</b> - |
| <b>HMIS</b> | <b>Health hazards</b> 0 | <b>Flammability</b> 0 | <b>Physical hazards</b> 0 | <b>Personal protection</b> X              |

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

|         |                             |      |                                  |
|---------|-----------------------------|------|----------------------------------|
| TWA     | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value         | *    | Skin designation                 |

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
EPA (Environmental Protection Agency)  
Acute Exposure Guideline Level(s) (AEGl(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
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Organization for Economic Co-operation and Development Screening Information Data Set  
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**Prepared By** Bio-Rad Laboratories, Environmental Health and Safety.

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**End of Safety Data Sheet**