

# KIT SAFETY DATA SHEET



**Kit Product Name** Bio-Plex Pro Human Cytokine Panels

**Kit Catalogue Number(s)** 12007283, 12007975, M50000007A, M5000005L3, M5000031YV, M500KCAF0Y, 12016960

**Revision date** 20-Apr-2022

## Kit Contents

Catalogue Number(s)	Product Name
9723892, 9703892, 9704415, 10014822, 10014823	Bio-Plex Assay Buffer
171304040, 10027955, 12006121, 12005850	Bio-Plex Pro Assays 10X Wash Buffer
12007919, 12007920, 12007292	Bio-Plex Pro Human Cytokine Screening Panel, Standards
12007298	Bio-Plex Pro Human Cytokine Screening Panel, Control
12007294	Bio-Plex Pro Human Cytokine Screening Panel, Bead Blend 48-Plex
12007293	Bio-Plex Pro Human Cytokine Screening Panel, Detection Antibodies Blend 48-Plex
10032400, 10031831, 12005852	Bio-Plex Detection Antibody Diluent HB
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:  
The Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Revision date 14-Jan-2021

Revision Number 1

## 1. IDENTIFICATION

### Product identifier

**Product Name** Bio-Plex Assay Buffer

### Other means of identification

**Catalogue Number(s)** 9723892, 9703892, 9704415, 10014822, 10014823

**Registration Number(s)** No information available

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

**Recommended use** Laboratory chemicals

### Supplier's details

#### Corporate Headquarters

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

#### Manufacturer

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

#### Legal Entity / Contact Address

Bio-Rad Laboratories Pvt. Ltd.  
Bio-Rad House  
86-87, Udyog Vihar Phase IV Gurgaon  
122005  
Haryana India

Bio-Rad Laboratories (Pty) Ltd.  
34 Bolton Road  
Parkwood, Johannesburg 2193  
South Africa

### Technical Service

India: 91-124-4029300 or 1-800-180-1224  
South Africa: 27-11-442-85-08  
India: support.india@bio-rad.com  
South Africa: cdg\_techsupport\_eemea@bio-rad.com

### Emergency telephone number

**24 Hour Emergency Phone Number** CHEMTREC India: 000-800-100-7141  
CHEMTREC South Africa: 0-800-983-611

## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

### GHS Label elements, including precautionary statements

### Other hazards which do not result in classification

No information available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Substance

Not applicable

### Mixture

## 4. FIRST AID MEASURES

### Description of necessary first aid measures

<b>Inhalation</b>	Remove to fresh air.
<b>Skin contact</b>	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Ingestion</b>	Rinse mouth thoroughly with water.

### For emergency responders

<b>Self-protection of the first aider</b>	No information available.
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### Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	No information available.
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### Indication of immediate medical attention and special treatment needed, if necessary

<b>Note to physicians</b>	Treat symptomatically.
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## 5. FIREFIGHTING MEASURES

### Suitable Extinguishing Media

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
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**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.
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### Specific hazards arising from the chemical

<b>Specific hazards arising from the chemical</b>	No information available.
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### Special protective actions for fire-fighters

<b>Special protective equipment and precautions for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Ensure adequate ventilation.
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### Environmental precautions

<b>Environmental precautions</b>	See Section 12 for additional Ecological Information.
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### Methods and material for containment and cleaning up

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
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<b>Methods for cleaning up</b>	Pick up and transfer to properly labeled containers.
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**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

## 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** Keep containers tightly closed in a dry, cool and well-ventilated place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

**Exposure guidelines** 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).

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

**Hand protection** Wear suitable gloves.

**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>Odour</b>	Odourless
<b>Appearance</b>	aqueous solution	<b>Odour threshold</b>	No information available
<b>Colour</b>	colourless		
<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>	0 °C / 32 °F		
<b>Boiling point / boiling range</b>	100 °C / 212 °F		
<b>Flash point</b>			No information available
<b>Evaporation rate</b>			No information available
<b>Flammability (solid, gas)</b>			No information available
<b>Upper/lower flammability or explosive limits</b>			
<b>Upper flammability or explosive limits</b>	Not applicable		
<b>Lower flammability or explosive limits</b>	Not applicable		
<b>Vapour pressure</b>			No information available
<b>Vapour density</b>			No information available
<b>Relative density</b>			No information available
<b>Solubility(ies)</b>			
<b>Water solubility</b>	Miscible in water		

Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity	
Kinematic viscosity	No information available
Dynamic viscosity	

Other information**10. STABILITY AND REACTIVITY**Reactivity

Reactivity No information available.

Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None  
Sensitivity to static discharge None.

Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Conditions to avoid

Conditions to avoid None known based on information supplied.

Incompatible materials

Incompatible materials None known based on information supplied.

Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

**11. TOXICOLOGICAL INFORMATION**Information on the 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 No information available.

Acute toxicity**Numerical measures of toxicity**

1.095 % of the mixture consists of ingredient(s) of unknown acute oral toxicity  
1.095 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

1.095 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)  
1.095 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)  
1.095 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

**Delayed and immediate effects and also chronic effects from short and long term exposure**

<b>Skin corrosion/irritation</b>	No information available.
<b>Serious eye damage/irritation</b>	No information available.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.

**12. ECOLOGICAL INFORMATION****Toxicity**

0.095 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Ecotoxicity****Persistence and degradability**

No information available.

**Bioaccumulative potential**

No information available.

**Mobility**

**Mobility in soil** No information available.

**Mobility** 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

<b>IMDG</b>	Not regulated
<b>Transport in bulk according to Annex II of MARPOL and the IBC Code</b>	No information available
<b>IATA</b>	Not regulated
<b>RID</b>	Not regulated
<b>ADR</b>	Not regulated
<b>ADN</b>	Not regulated
<b>Special precautions for user</b>	Special provisions from the regulations relative to the specified mode of transport are noted by numeric code. Refer to the regulations for the full text of special provisions.

## 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>Prepared By</b>	Bio-Rad Laboratories, Environmental Health and Safety
<b>Revision date</b>	14-Jan-2021
<b>Revision Note</b>	*** Indicates this information has changed since the previous revision.

### 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
C	Carcinogen		

#### **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:  
The Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Revision date 22-Jan-2021

Revision Number 1

## 1. IDENTIFICATION

### Product identifier

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

### Other means of identification

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

**Registration Number(s)** No information available

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

**Recommended use** Laboratory chemicals

### Supplier's details

#### Corporate Headquarters

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

#### Manufacturer

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

#### Legal Entity / Contact Address

Bio-Rad Laboratories Pvt. Ltd.  
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86-87, Udyog Vihar Phase IV Gurgaon  
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Haryana India

Bio-Rad Laboratories (Pty) Ltd.  
34 Bolton Road  
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South Africa

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South Africa: 27-11-442-85-08  
India: support.india@bio-rad.com  
South Africa: cdg\_techsupport\_eemea@bio-rad.com

### Emergency telephone number

**24 Hour Emergency Phone Number** CHEMTREC India: 000-800-100-7141  
CHEMTREC South Africa: 0-800-983-611

## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

### GHS Label elements, including precautionary statements

### Other hazards which do not result in classification

No information available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Substance

Not applicable

### Mixture



Chemical name	CAS No	Weight-%
Water 7732-18-5	7732-18-5	88.4
Trade secret	-	0 - 10%
Trade secret	-	0 - 10%
Trade secret	-	0 - 10%

#### 4. FIRST AID MEASURES

##### Description of necessary first aid measures

<b>Inhalation</b>	Remove to fresh air.
<b>Skin contact</b>	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Ingestion</b>	Rinse mouth thoroughly with water.

##### For emergency responders

**Self-protection of the first aider** No information available.

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

**Symptoms** No information available.

##### Indication of immediate medical attention and special treatment needed, if necessary

**Note to physicians** Treat symptomatically.

#### 5. FIREFIGHTING MEASURES

##### Suitable Extinguishing Media

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

**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

##### Specific hazards arising from the chemical

**Specific hazards arising from the chemical** No information available.

##### Special protective actions for fire-fighters

**Special protective equipment and precautions 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** Ensure adequate ventilation.

**Environmental precautions**

**Environmental precautions** See Section 12 for additional Ecological 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.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

## 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** Keep containers tightly closed in a dry, cool and well-ventilated place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure guidelines** 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).

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

**Hand protection** Wear suitable gloves.

**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>Odour</b>	Odourless
<b>Appearance</b>	aqueous solution	<b>Odour threshold</b>	No information available
<b>Colour</b>	colourless		
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	
<b>pH</b>	7.4		
<b>Melting point / freezing point</b>		No information available	
<b>Boiling point / boiling range</b>	100 °C / 212 °F		
<b>Flash point</b>		No information available	
<b>Evaporation rate</b>		No information available	

<b>Flammability (solid, gas)</b>	No information available
<b>Upper/lower flammability or explosive limits</b>	
<b>Upper flammability or explosive limits</b>	Not applicable
<b>Lower flammability or explosive limits</b>	Not applicable
<b>Vapour pressure</b>	No information available
<b>Vapour density</b>	No information available
<b>Relative density</b>	No information available
<b>Solubility(ies)</b>	
<b>Water solubility</b>	Miscible in water
<b>Solubility in other solvents</b>	No information available
<b>Partition coefficient</b>	No information available
<b>Autoignition temperature</b>	No information available
<b>Decomposition temperature</b>	No information available
<b>Viscosity</b>	
<b>Kinematic viscosity</b>	No information available
<b>Dynamic viscosity</b>	

**Other information**

## 10. STABILITY AND REACTIVITY

**Reactivity**

**Reactivity** No information available.

**Chemical stability**

**Stability** Stable under normal conditions.

**Explosion data**

**Sensitivity to mechanical impact** None  
  **Sensitivity to static discharge** None.

**Possibility of hazardous reactions**

**Possibility of hazardous reactions** None under normal processing.

**Conditions to avoid**

**Conditions to avoid** None known based on information supplied.

**Incompatible materials**

**Incompatible materials** None known based on information supplied.

**Hazardous decomposition products**

**Hazardous decomposition products** None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

**Information on the 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** 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) 34,207.50 mg/kg

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Water	> 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	= 37000 mg/kg ( Rat )	-	> 5.1 mg/L ( Rat ) 4 h

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Skin corrosion/irritation** No information available.

**Serious eye damage/irritation** No information available.

**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

## 12. ECOLOGICAL INFORMATION

**Toxicity**

0.95 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Ecotoxicity**

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

		<i>promelas</i>	
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**Persistence and degradability**

No information available.

**Bioaccumulative potential**

No information available.

**Mobility****Mobility in soil** No information available.**Mobility** 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

**IMDG** Not regulated  
**Transport in bulk according to Annex II of MARPOL and the IBC Code** No information available

**IATA** Not regulated**RID** Not regulated**ADR** Not regulated**ADN** Not regulated**Special precautions for user** Special provisions from the regulations relative to the specified mode of transport are noted by numeric code. Refer to the regulations for the full text of special provisions.

### 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**

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

**Revision date** 22-Jan-2021

**Revision Note** \*\*\* Indicates this information has changed since the previous revision.

**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
C	Carcinogen		

**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:  
The Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Revision date 28-Oct-2021

Revision Number 1.1

## 1. IDENTIFICATION

### Product identifier

**Product Name** Bio-Plex Pro Human Cytokine Screening Panel, Standards

### Other means of identification

**Catalogue Number(s)** 12007919, 12007920, 12007292

**Registration Number(s)** No information available

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

**Recommended use** Laboratory chemicals

### Supplier's details

#### Corporate Headquarters

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

#### Manufacturer

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

#### Legal Entity / Contact Address

Bio-Rad Laboratories Pvt. Ltd.  
Bio-Rad House  
86-87, Udyog Vihar Phase IV Gurgaon  
122005  
Haryana India

Bio-Rad Laboratories (Pty) Ltd.  
34 Bolton Road  
Parkwood, Johannesburg 2193  
South Africa

### Technical Service

India: 91-124-4029300 or 1-800-180-1224  
South Africa: 27-11-442-85-08  
India: support.india@bio-rad.com  
South Africa: cdg\_techsupport\_eemea@bio-rad.com

### Emergency telephone number

**24 Hour Emergency Phone Number** CHEMTREC India: 000-800-100-7141  
CHEMTREC South Africa: 0-800-983-611

## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

### GHS Label elements, including precautionary statements

### Other hazards which do not result in classification

No information available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Substance

Not applicable

### Mixture

Chemical name	CAS No	Weight-%
Trade secret	-	0 - 10%

#### 4. FIRST AID MEASURES

##### Description of necessary first aid measures

<b>Inhalation</b>	Remove to fresh air.
<b>Skin contact</b>	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Ingestion</b>	Rinse mouth thoroughly with water.

##### For emergency responders

**Self-protection of the first aider** No information available.

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

**Symptoms** No information available.

##### Indication of immediate medical attention and special treatment needed, if necessary

**Note to physicians** Treat symptomatically.

#### 5. FIREFIGHTING MEASURES

##### Suitable Extinguishing Media

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

**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

##### Specific hazards arising from the chemical

**Specific hazards arising from the chemical** No information available.

##### Special protective actions for fire-fighters

**Special protective equipment and precautions 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** Ensure adequate ventilation.

##### Environmental precautions

**Environmental precautions** See Section 12 for additional Ecological Information.



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

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Pick up and transfer to properly labeled containers.
<b>Prevention of secondary hazards</b>	Clean contaminated objects and areas thoroughly observing environmental regulations.

**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** Keep containers tightly closed in a dry, cool and well-ventilated place.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure guidelines** 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**

<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin and body protection</b>	Wear suitable protective clothing.
<b>Hand protection</b>	Wear suitable gloves.
<b>Respiratory protection</b>	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
<b>General hygiene considerations</b>	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>	Solid	<b>Odour</b>	Odourless
<b>Appearance</b>	No information available	<b>Odour threshold</b>	No information available
<b>Colour</b>	white		

<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>
<b>pH</b>		No information available
<b>Melting point / freezing point</b>		No information available
<b>Boiling point / boiling range</b>		No information available
<b>Flash point</b>		No information available
<b>Evaporation rate</b>		No information available
<b>Flammability (solid, gas)</b>		No information available
<b>Upper/lower flammability or explosive limits</b>		
<b>Upper flammability or explosive limits</b>	Not applicable	

Lower flammability or explosive limits	Not applicable	
Vapour pressure		No information available
Vapour density		No information available
Relative density		No information available
Solubility(ies)		
Water solubility	Insoluble in water	
Solubility in other solvents		No information available
Partition coefficient		No information available
Autoignition temperature	463	No information available
Decomposition temperature		No information available
Viscosity		
Kinematic viscosity		No information available
Dynamic viscosity		

Other information

## 10. STABILITY AND REACTIVITY

Reactivity

Reactivity No information available.

Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None  
Sensitivity to static discharge None.

Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Conditions to avoid

Conditions to avoid None known based on information supplied.

Incompatible materials

Incompatible materials None known based on information supplied.

Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

Information on the 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	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**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Trade secret	= 3 g/kg ( Rat )	> 10000 mg/kg ( Rabbit )	> 42 mg/L ( Rat ) 1 h

**Delayed and immediate effects and also chronic effects from short and long term exposure**

<b>Skin corrosion/irritation</b>	No information available.
<b>Serious eye damage/irritation</b>	No information available.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.

**12. ECOLOGICAL INFORMATION**

Toxicity

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Ecotoxicity**

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

**Persistence and degradability**

No information available.

**Bioaccumulative potential**

There is no data for this product.

**Mobility**

**Mobility in soil** No information available.

**Mobility** 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**

**IMDG** Not regulated  
**Transport in bulk according to Annex II of MARPOL and the IBC Code** No information available

**IATA** Not regulated

**RID** Not regulated

**ADR** Not regulated

**ADN** Not regulated

**Special precautions for user** Special provisions from the regulations relative to the specified mode of transport are noted by numeric code. Refer to the regulations for the full text of special provisions.

**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**

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

**Revision date** 28-Oct-2021

**Revision Note** SDS sections updated. 1.

**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
C	Carcinogen		

**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:  
The Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Revision date 28-Oct-2021

Revision Number 1.1

## 1. IDENTIFICATION

### Product identifier

**Product Name** Bio-Plex Pro Human Cytokine Screening Panel, Control

### Other means of identification

**Catalogue Number(s)** 12007298

**Registration Number(s)** No information available

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

**Recommended use** Laboratory chemicals

### Supplier's details

#### Corporate Headquarters

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

#### Manufacturer

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

#### Legal Entity / Contact Address

Bio-Rad Laboratories Pvt. Ltd.  
Bio-Rad House  
86-87, Udyog Vihar Phase IV Gurgaon  
122005  
Haryana India

Bio-Rad Laboratories (Pty) Ltd.  
34 Bolton Road  
Parkwood, Johannesburg 2193  
South Africa

### Technical Service

India: 91-124-4029300 or 1-800-180-1224  
South Africa: 27-11-442-85-08  
India: support.india@bio-rad.com  
South Africa: cdg\_techsupport\_eemea@bio-rad.com

### Emergency telephone number

**24 Hour Emergency Phone Number** CHEMTREC India: 000-800-100-7141  
CHEMTREC South Africa: 0-800-983-611

## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

### GHS Label elements, including precautionary statements

### Other hazards which do not result in classification

No information available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Substance

Not applicable

### Mixture

Chemical name	CAS No	Weight-%
Trade secret	-	0 - 10%

#### 4. FIRST AID MEASURES

##### Description of necessary first aid measures

<b>Inhalation</b>	Remove to fresh air.
<b>Skin contact</b>	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Ingestion</b>	Rinse mouth thoroughly with water.

##### For emergency responders

**Self-protection of the first aider** No information available.

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

**Symptoms** No information available.

##### Indication of immediate medical attention and special treatment needed, if necessary

**Note to physicians** Treat symptomatically.

#### 5. FIREFIGHTING MEASURES

##### Suitable Extinguishing Media

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

**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

##### Specific hazards arising from the chemical

**Specific hazards arising from the chemical** No information available.

##### Special protective actions for fire-fighters

**Special protective equipment and precautions 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** Ensure adequate ventilation.

##### Environmental precautions

**Environmental precautions** See Section 12 for additional Ecological 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.
- Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

**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** Keep containers tightly closed in a dry, cool and well-ventilated place.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure guidelines** 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).
- Skin and body protection** Wear suitable protective clothing.
- Hand protection** Wear suitable gloves.
- 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>	Solid	<b>Odour</b>	Odourless
<b>Appearance</b>	No information available	<b>Odour threshold</b>	No information available
<b>Colour</b>	white		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH		No information available
Melting point / freezing point		No information available
Boiling point / boiling range		No information available
Flash point		No information available
Evaporation rate		No information available
Flammability (solid, gas)		No information available
<b>Upper/lower flammability or explosive limits</b>		
<b>Upper flammability or explosive limits</b>	Not applicable	



Lower flammability or explosive limits	Not applicable	
Vapour pressure		No information available
Vapour density		No information available
Relative density		No information available
Solubility(ies)		
Water solubility	Insoluble in water	
Solubility in other solvents		No information available
Partition coefficient		No information available
Autoignition temperature	463	No information available
Decomposition temperature		No information available
Viscosity		
Kinematic viscosity		No information available
Dynamic viscosity		

Other information

## 10. STABILITY AND REACTIVITY

Reactivity

Reactivity No information available.

Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None  
Sensitivity to static discharge None.

Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Conditions to avoid

Conditions to avoid None known based on information supplied.

Incompatible materials

Incompatible materials None known based on information supplied.

Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

Information on the 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	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**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Trade secret	= 3 g/kg ( Rat )	> 10000 mg/kg ( Rabbit )	> 42 mg/L ( Rat ) 1 h

**Delayed and immediate effects and also chronic effects from short and long term exposure**

<b>Skin corrosion/irritation</b>	No information available.
<b>Serious eye damage/irritation</b>	No information available.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.

**12. ECOLOGICAL INFORMATION**

Toxicity

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Ecotoxicity**

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

**Persistence and degradability**

No information available.

**Bioaccumulative potential**

There is no data for this product.

**Mobility**

**Mobility in soil** No information available.

**Mobility** 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**

**IMDG** Not regulated  
**Transport in bulk according to Annex II of MARPOL and the IBC Code** No information available

**IATA** Not regulated

**RID** Not regulated

**ADR** Not regulated

**ADN** Not regulated

**Special precautions for user** Special provisions from the regulations relative to the specified mode of transport are noted by numeric code. Refer to the regulations for the full text of special provisions.

**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**

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

**Revision date** 28-Oct-2021

**Revision Note** SDS sections updated. 1.

**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
C	Carcinogen		

**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**

## 1. IDENTIFICATION

**Product identifier**

**Product Name** Bio-Plex Pro Human Cytokine Screening Panel, Bead Blend 48-Plex

**Other means of identification**

**Catalogue Number(s)** 12007294

**Registration Number(s)** No information available

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

**Recommended use** Laboratory chemicals

**Supplier's details**

**Corporate Headquarters**

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

**Manufacturer**

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

**Legal Entity / Contact Address**

Bio-Rad Laboratories Pvt. Ltd.  
Bio-Rad House  
86-87, Udyog Vihar Phase IV Gurgaon  
122005  
Haryana India

Bio-Rad Laboratories (Pty) Ltd.  
34 Bolton Road  
Parkwood, Johannesburg 2193  
South Africa

**Technical Service**

India: 91-124-4029300 or 1-800-180-1224  
South Africa: 27-11-442-85-08  
India: support.india@bio-rad.com  
South Africa: cdg\_techsupport\_eemea@bio-rad.com

**Emergency telephone number**

**24 Hour Emergency Phone Number** CHEMTREC India: 000-800-100-7141  
CHEMTREC South Africa: 0-800-983-611

## 2. HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

Skin sensitization	Category 1A
Acute aquatic toxicity	Category 3
Chronic aquatic toxicity	Category 3

**GHS Label elements, including precautionary statements**



Signal word

Warning

**Hazard statements**

May cause an allergic skin reaction  
 Harmful to aquatic life with long lasting effects

**Precautionary Statements - Prevention**

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

**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 hazards which do not result in classification**

No information available

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substance**

Not applicable

**Mixture**

Chemical name	CAS No	Weight-%
Water 7732-18-5	7732-18-5	70
Magnetic Beads NO-CAS-23	NO-CAS-23	20
Trade secret	-	0 - 10%
Trade secret	-	0 - 10%
Trade secret	-	0 - 10%
Modified Glycol NO-CAS-54	NO-CAS-54	0.19
Trade secret	-	0 - 10%
Trade secret	-	0 - 10%
Antibodies NO-CAS-81	NO-CAS-81	0.1
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9	55965-84-9	0.006
Modified alkyl carboxylate NO-CAS-53	NO-CAS-53	0.004

**4. FIRST AID MEASURES**

**Description of necessary first aid measures**

**General advice**

Show this safety data sheet to the doctor in attendance.

**Inhalation**

Remove to fresh air.

**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.

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

**Ingestion** Rinse mouth thoroughly with water.

**For emergency responders**

**Self-protection of the first aider** No information available.

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

**Symptoms** Itching. Rashes. Hives.

**Indication of immediate medical attention and special treatment needed, if necessary**

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

## 5. FIREFIGHTING MEASURES

**Suitable Extinguishing Media**

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

**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

**Specific hazards arising from the chemical**

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

**Special protective actions for fire-fighters**

**Special protective equipment and precautions 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.

**Environmental precautions**

**Environmental precautions** See Section 12 for additional Ecological 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.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

## 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.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

Exposure guidelines

Chemical name	China	Japan Society of Occupational Health	OEL	Australia	Taiwan
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9	-	-	TWA: 0.1 mg/m <sup>3</sup>	-	-

**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).

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

**Hand protection** Wear suitable gloves.

**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>Odour</b>	Odourless
<b>Appearance</b>	Suspension	<b>Odour threshold</b>	No information available
<b>Colour</b>	colourless		
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	
<b>pH</b>		No information available	
<b>Melting point / freezing point</b>		No information available	
<b>Boiling point / boiling range</b>	100 °C / 212 °F		
<b>Flash point</b>		No information available	
<b>Evaporation rate</b>		No information available	
<b>Flammability (solid, gas)</b>		No information available	
<b>Upper/lower flammability or explosive limits</b>			
<b>Upper flammability or explosive limits</b>	Not applicable		
<b>Lower flammability or explosive limits</b>	Not applicable		
<b>Vapour pressure</b>		No information available	
<b>Vapour density</b>		No information available	
<b>Relative density</b>		No information available	



<b>Solubility(ies)</b>		
Water solubility	Partially miscible	
Solubility in other solvents		No information available
<b>Partition coefficient</b>		No information available
<b>Autoignition temperature</b>		No information available
<b>Decomposition temperature</b>		No information available
<b>Viscosity</b>		
Kinematic viscosity		No information available
Dynamic viscosity		

**Other information**

## 10. STABILITY AND REACTIVITY

**Reactivity**

**Reactivity** No information available.

**Chemical stability**

**Stability** Stable under normal conditions.

**Explosion data**

**Sensitivity to mechanical impact** None  
  **Sensitivity to static discharge** None.

**Possibility of hazardous reactions**

**Possibility of hazardous reactions** None under normal processing.

**Conditions to avoid**

**Conditions to avoid** None known based on information supplied.

**Incompatible materials**

**Incompatible materials** None known based on information supplied.

**Hazardous decomposition products**

**Hazardous decomposition products** None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

**Information on the 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** 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) 39,855.00 mg/kg

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Water	> 90 mL/kg ( Rat )	-	-
Trade secret	= 3 g/kg ( Rat )	> 10000 mg/kg ( Rabbit )	> 42 mg/L ( Rat ) 1 h
Trade secret	= 5900 mg/kg ( Rat )	> 5000 mg/kg ( Rat )	-
Trade secret	= 37000 mg/kg ( Rat )	-	> 5.1 mg/L ( Rat ) 4 h
Trade secret	> 3 g/kg ( Rat )	-	-
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone	= 53 mg/kg ( Rat )	= 87.12 mg/kg ( Rabbit )	-

**Delayed and immediate effects and also chronic effects from short and long term exposure**

<b>Skin corrosion/irritation</b>	No information available.
<b>Serious eye damage/irritation</b>	No information available.
<b>Respiratory or skin sensitization</b>	May cause an allergic skin reaction.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.

**12. ECOLOGICAL INFORMATION**

**Toxicity**

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Ecotoxicity**

Harmful to aquatic life with long lasting effects.

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

		<i>promelas</i>	
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**Persistence and degradability**

No information available.

**Bioaccumulative potential**

No information available.

**Mobility**

**Mobility in soil** No information available.

**Mobility** 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**

**IMDG** Not regulated  
**Transport in bulk according to Annex II of MARPOL and the IBC Code** No information available

**IATA** Not regulated

**RID** Not regulated

**ADR** Not regulated

**ADN** Not regulated

**Special precautions for user** Special provisions from the regulations relative to the specified mode of transport are noted by numeric code. Refer to the regulations for the full text of special provisions.

**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

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

**Revision date** 25-Mar-2021

**Revision Note** SDS sections updated. 1.

### 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
C	Carcinogen		

#### 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**

## 1. IDENTIFICATION

**Product identifier**

**Product Name** Bio-Plex Pro Human Cytokine Screening Panel, Detection Antibodies Blend 48-Plex

**Other means of identification**

**Catalogue Number(s)** 12007293

**Registration Number(s)** No information available

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

**Recommended use** Laboratory chemicals

**Supplier's details**

**Corporate Headquarters**

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

**Manufacturer**

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

**Legal Entity / Contact Address**

Bio-Rad Laboratories Pvt. Ltd.  
Bio-Rad House  
86-87, Udyog Vihar Phase IV Gurgaon  
122005  
Haryana India

Bio-Rad Laboratories (Pty) Ltd.  
34 Bolton Road  
Parkwood, Johannesburg 2193  
South Africa

**Technical Service**

India: 91-124-4029300 or 1-800-180-1224  
South Africa: 27-11-442-85-08  
India: support.india@bio-rad.com  
South Africa: cdg\_techsupport\_eemea@bio-rad.com

**Emergency telephone number**

**24 Hour Emergency Phone Number** CHEMTREC India: 000-800-100-7141  
CHEMTREC South Africa: 0-800-983-611

## 2. HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

Skin sensitization	Category 1A
Acute aquatic toxicity	Category 3
Chronic aquatic toxicity	Category 3

**GHS Label elements, including precautionary statements**



Signal word

Warning

**Hazard statements**

May cause an allergic skin reaction  
Harmful to aquatic life with long lasting effects

**Precautionary Statements - Prevention**

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

**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 hazards which do not result in classification**

No information available

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substance**

Not applicable

**Mixture**

Chemical name	CAS No	Weight-%
Water 7732-18-5	7732-18-5	88.0482
Animal Source Antibody NO-CAS-90	NO-CAS-90	10.189
Trade secret	-	0 - 10%
Sodium phosphate dibasic 7558-79-4	7558-79-4	0.199
Modified Glycol NO-CAS-54	NO-CAS-54	0.19
Trade secret	-	0 - 10%
Trade secret	-	0 - 10%
Sodium azide 26628-22-8	26628-22-8	0.0949
Trade secret	-	0 - 10%
Trade secret	-	0 - 10%
Antibodies NO-CAS-81	NO-CAS-81	0.0099
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9	55965-84-9	0.006
Modified alkyl carboxylate NO-CAS-53	NO-CAS-53	0.004
Animal Source Material (Mouse) NO-CAS-46	NO-CAS-46	0.0001
Animal Source Material (Goat) NO-CAS-17	NO-CAS-17	0.0001
Animal Source Material (Cattle) NO-CAS-44	NO-CAS-44	0.0001

## 4. FIRST AID MEASURES

### Description of necessary first aid measures

<b>General advice</b>	Show this safety data sheet to the doctor in attendance.
<b>Inhalation</b>	Remove to fresh air.
<b>Skin contact</b>	Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Ingestion</b>	Rinse mouth thoroughly with water.

### For emergency responders

**Self-protection of the first aider** No information available.

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

**Symptoms** Itching. Rashes. Hives.

### Indication of immediate medical attention and special treatment needed, if necessary

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

## 5. FIREFIGHTING MEASURES

### Suitable Extinguishing Media

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

**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

### Specific hazards arising from the chemical

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

### Special protective actions for fire-fighters

**Special protective equipment and precautions 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.

### Environmental precautions

**Environmental precautions** See Section 12 for additional Ecological 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.
- Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

## 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.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

Exposure guidelines

Chemical name	ACGIH TLV	OSHA PEL	Ontario	European Union	
Sodium azide 26628-22-8	Ceiling: 0.29 mg/m <sup>3</sup> Sodium azide Ceiling: 0.11 ppm Hydrazoic acid vapor	(vacated) S* (vacated) Ceiling: 0.1 ppm HN3 (vacated) Ceiling: 0.3 mg/m <sup>3</sup> NaN3	CEV: 0.29 mg/m <sup>3</sup> CEV: 0.11 ppm	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup> *	
Chemical name	China	Japan Society of Occupational Health	OEL	Australia	Taiwan
Sodium azide 26628-22-8	Ceiling: 0.3 mg/m <sup>3</sup> Ceiling	-	Ceiling: 0.29 mg/m <sup>3</sup>	0.11 ppm Peak 0.3 mg/m <sup>3</sup> Peak	Ceiling: 0.11 ppm Ceiling: 0.29 mg/m <sup>3</sup>
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9	-	-	TWA: 0.1 mg/m <sup>3</sup>	-	-

### 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).
- Skin and body protection** Wear suitable protective clothing.
- Hand protection** Wear suitable gloves.
- 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



<b>Appearance</b>	No information available	<b>Odour</b>	Odourless
<b>Colour</b>	colourless	<b>Odour threshold</b>	No information available
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	
<b>pH</b>		No information available	
<b>Melting point / freezing point</b>		No information available	
<b>Boiling point / boiling range</b>	100 °C / 212 °F		
<b>Flash point</b>		No information available	
<b>Evaporation rate</b>		No information available	
<b>Flammability (solid, gas)</b>		No information available	
<b>Upper/lower flammability or explosive limits</b>			
<b>Upper flammability or explosive limits</b>	Not applicable		
<b>Lower flammability or explosive limits</b>	Not applicable		
<b>Vapour pressure</b>		No information available	
<b>Vapour density</b>		No information available	
<b>Relative density</b>		No information available	
<b>Solubility(ies)</b>			
<b>Water solubility</b>	Miscible in water		
<b>Solubility in other solvents</b>		No information available	
<b>Partition coefficient</b>		No information available	
<b>Autoignition temperature</b>		No information available	
<b>Decomposition temperature</b>		No information available	
<b>Viscosity</b>			
<b>Kinematic viscosity</b>		No information available	
<b>Dynamic viscosity</b>			

**Other information**

**10. STABILITY AND REACTIVITY**

**Reactivity**

**Reactivity** No information available.

**Chemical stability**

**Stability** Stable under normal conditions.

**Explosion data**

**Sensitivity to mechanical impact** None  
    **Sensitivity to static discharge** None.

**Possibility of hazardous reactions**

**Possibility of hazardous reactions** None under normal processing.

**Conditions to avoid**

**Conditions to avoid** None known based on information supplied.

**Incompatible materials**

**Incompatible materials** None known based on information supplied.

**Hazardous decomposition products**

**Hazardous decomposition products** None known based on information supplied.

**11. TOXICOLOGICAL INFORMATION**

**Information on the 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** Itching. Rashes. Hives.

**Acute toxicity**

**Numerical measures of toxicity**

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Water	> 90 mL/kg ( Rat )	-	-
Trade secret	= 3 g/kg ( Rat )	> 10000 mg/kg ( Rabbit )	> 42 mg/L ( Rat ) 1 h
Sodium phosphate dibasic	= 17 g/kg ( Rat )	-	-
Trade secret	= 8290 mg/kg ( Rat )	> 7940 mg/kg ( Rabbit )	> 0.83 mg/L ( Rat ) 4 h
Sodium azide	= 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
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone	= 53 mg/kg ( Rat )	= 87.12 mg/kg ( Rabbit )	-

**Delayed and immediate effects and also chronic effects from short and long term exposure**

- Skin corrosion/irritation** No information available.
- Serious eye damage/irritation** No information available.
- Respiratory or skin sensitization** May cause an allergic skin reaction.
- Germ cell mutagenicity** No information available.
- Carcinogenicity** No information available.
- Reproductive toxicity** No information available.
- STOT - single exposure** No information available.
- STOT - repeated exposure** No information available.
- Aspiration hazard** No information available.

## 12. ECOLOGICAL INFORMATION

### Toxicity

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

### Ecotoxicity

Harmful to aquatic life with long lasting effects.

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

### Persistence and degradability

No information available.

### Bioaccumulative potential

No information available.

### Mobility

#### **Mobility in soil**

No information available.

#### **Mobility**

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

### IMDG

Not regulated

#### **Transport in bulk according to**

No information available

Annex II of MARPOL and the IBC  
Code

IATA Not regulated

RID Not regulated

ADR Not regulated

ADN Not regulated

**Special precautions for user** Special provisions from the regulations relative to the specified mode of transport are noted by numeric code. Refer to the regulations for the full text of special provisions.

## 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

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

**Revision date** 25-Mar-2021

**Revision Note** SDS sections updated. 1.

### 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
C	Carcinogen		

#### 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:  
The Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Revision date 22-Jan-2021

Revision Number 1

## 1. IDENTIFICATION

### Product identifier

**Product Name** Bio-Plex Detection Antibody Diluent HB

### Other means of identification

**Catalogue Number(s)** 10032400, 10031831, 12005852

**Registration Number(s)** No information available

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

**Recommended use** Laboratory chemicals

### Supplier's details

#### Corporate Headquarters

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

#### Manufacturer

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

#### Legal Entity / Contact Address

Bio-Rad Laboratories Pvt. Ltd.  
Bio-Rad House  
86-87, Udyog Vihar Phase IV Gurgaon  
122005  
Haryana India

Bio-Rad Laboratories (Pty) Ltd.  
34 Bolton Road  
Parkwood, Johannesburg 2193  
South Africa

### Technical Service

India: 91-124-4029300 or 1-800-180-1224  
South Africa: 27-11-442-85-08  
India: support.india@bio-rad.com  
South Africa: cdg\_techsupport\_eemea@bio-rad.com

### Emergency telephone number

**24 Hour Emergency Phone Number** CHEMTREC India: 000-800-100-7141  
CHEMTREC South Africa: 0-800-983-611

## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

### GHS Label elements, including precautionary statements

### Other hazards which do not result in classification

No information available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Substance

Not applicable

### Mixture

#### 4. FIRST AID MEASURES

##### Description of necessary first aid measures

Inhalation	Remove to fresh air.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Ingestion	Rinse mouth thoroughly with water.

##### For emergency responders

Self-protection of the first aider No information available.

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

Symptoms No information available.

##### Indication of immediate medical attention and special treatment needed, if necessary

Note to physicians Treat symptomatically.

#### 5. FIREFIGHTING MEASURES

##### Suitable Extinguishing Media

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

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

##### Specific hazards arising from the chemical

Specific hazards arising from the chemical No information available.

##### Special protective actions for fire-fighters

Special protective equipment and precautions 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 Ensure adequate ventilation.

##### Environmental precautions

Environmental precautions See Section 12 for additional Ecological 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.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

## 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** Keep containers tightly closed in a dry, cool and well-ventilated place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

**Exposure guidelines** 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).

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

**Hand protection** Wear suitable gloves.

**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>Odour</b>	Odourless
<b>Appearance</b>	aqueous solution	<b>Odour threshold</b>	No information available
<b>Colour</b>	colourless		
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	
<b>pH</b>	7.4		
<b>Melting point / freezing point</b>		No information available	
<b>Boiling point / boiling range</b>	100 °C / 212 °F		
<b>Flash point</b>		No information available	
<b>Evaporation rate</b>		No information available	
<b>Flammability (solid, gas)</b>		No information available	
<b>Upper/lower flammability or explosive limits</b>			
<b>Upper flammability or explosive limits</b>	Not applicable		
<b>Lower flammability or explosive limits</b>	Not applicable		
<b>Vapour pressure</b>		No information available	
<b>Vapour density</b>		No information available	
<b>Relative density</b>		No information available	
<b>Solubility(ies)</b>			

<b>Water solubility</b>	Miscible in water	
<b>Solubility in other solvents</b>		No information available
<b>Partition coefficient</b>		No information available
<b>Autoignition temperature</b>		No information available
<b>Decomposition temperature</b>		No information available
<b>Viscosity</b>		
<b>Kinematic viscosity</b>		No information available
<b>Dynamic viscosity</b>		

**Other information****10. STABILITY AND REACTIVITY****Reactivity**

**Reactivity** No information available.

**Chemical stability**

**Stability** Stable under normal conditions.

**Explosion data**

**Sensitivity to mechanical impact** None

**Sensitivity to static discharge** None.

**Possibility of hazardous reactions**

**Possibility of hazardous reactions** None under normal processing.

**Conditions to avoid**

**Conditions to avoid** None known based on information supplied.

**Incompatible materials**

**Incompatible materials** None known based on information supplied.

**Hazardous decomposition products**

**Hazardous decomposition products** None known based on information supplied.

**11. TOXICOLOGICAL INFORMATION****Information on the 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** No information available.

**Acute toxicity**

**Numerical measures of toxicity**



**Component Information****Delayed and immediate effects and also chronic effects from short and long term exposure**

<b>Skin corrosion/irritation</b>	No information available.
<b>Serious eye damage/irritation</b>	No information available.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.

**12. ECOLOGICAL INFORMATION****Toxicity**

0.095 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Ecotoxicity****Persistence and degradability**

No information available.

**Bioaccumulative potential**

No information available.

**Mobility**

**Mobility in soil** No information available.

**Mobility** 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**

**IMDG** Not regulated

Transport in bulk according to Annex II of MARPOL and the IBC Code No information available

IATA Not regulated

RID Not regulated

ADR Not regulated

ADN Not regulated

**Special precautions for user** Special provisions from the regulations relative to the specified mode of transport are noted by numeric code. Refer to the regulations for the full text of special provisions.

## 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

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

**Revision date** 22-Jan-2021

**Revision Note** SDS sections updated. 1.

### 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
C	Carcinogen		

#### 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:  
The Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Revision date 19-Mar-2021

Revision Number 1

## 1. IDENTIFICATION

### Product identifier

**Product Name** Bio-Plex Sample Diluent

### Other means of identification

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

**Registration Number(s)** No information available

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

**Recommended use** Laboratory chemicals

### Supplier's details

#### Corporate Headquarters

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

#### Manufacturer

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

#### Legal Entity / Contact Address

Bio-Rad Laboratories Pvt. Ltd.  
Bio-Rad House  
86-87, Udyog Vihar Phase IV Gurgaon  
122005  
Haryana India

Bio-Rad Laboratories (Pty) Ltd.  
34 Bolton Road  
Parkwood, Johannesburg 2193  
South Africa

### Technical Service

India: 91-124-4029300 or 1-800-180-1224  
South Africa: 27-11-442-85-08  
India: support.india@bio-rad.com  
South Africa: cdg\_techsupport\_eemea@bio-rad.com

### Emergency telephone number

**24 Hour Emergency Phone Number** CHEMTREC India: 000-800-100-7141  
CHEMTREC South Africa: 0-800-983-611

## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

### GHS Label elements, including precautionary statements

### Other hazards which do not result in classification

No information available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Substance

Not applicable

### Mixture

## 4. FIRST AID MEASURES

### Description of necessary first aid measures

<b>Inhalation</b>	Remove to fresh air.
<b>Skin contact</b>	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Ingestion</b>	Rinse mouth thoroughly with water.

### For emergency responders

<b>Self-protection of the first aider</b>	No information available.
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### Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	No information available.
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### Indication of immediate medical attention and special treatment needed, if necessary

<b>Note to physicians</b>	Treat symptomatically.
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## 5. FIREFIGHTING MEASURES

### Suitable Extinguishing Media

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Large Fire</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.

### Specific hazards arising from the chemical

<b>Specific hazards arising from the chemical</b>	No information available.
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### Special protective actions for fire-fighters

<b>Special protective equipment and precautions for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Ensure adequate ventilation.
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### Environmental precautions

<b>Environmental precautions</b>	See Section 12 for additional Ecological Information.
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### Methods and material for containment and cleaning up

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Pick up and transfer to properly labeled containers.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

## 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** Keep containers tightly closed in a dry, cool and well-ventilated place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

**Exposure guidelines** 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).

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

**Hand protection** Wear suitable gloves.

**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>Odour</b>	Odourless
<b>Appearance</b>	aqueous solution	<b>Odour threshold</b>	No information available
<b>Colour</b>	colourless		
<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>	0 °C / 32 °F		
<b>Boiling point / boiling range</b>	100 °C / 212 °F		
<b>Flash point</b>			No information available
<b>Evaporation rate</b>			No information available
<b>Flammability (solid, gas)</b>			No information available
<b>Upper/lower flammability or explosive limits</b>			
<b>Upper flammability or explosive limits</b>	Not applicable		
<b>Lower flammability or explosive limits</b>	Not applicable		
<b>Vapour pressure</b>			No information available
<b>Vapour density</b>			No information available
<b>Relative density</b>			No information available
<b>Solubility(ies)</b>			
<b>Water solubility</b>	Miscible in water		

Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity	
Kinematic viscosity	No information available
Dynamic viscosity	

Other information

## 10. STABILITY AND REACTIVITY

Reactivity

**Reactivity** No information available.

Chemical stability

**Stability** Stable under normal conditions.

Explosion data

**Sensitivity to mechanical impact** None  
**Sensitivity to static discharge** None.

Possibility of hazardous reactions

**Possibility of hazardous reactions** None under normal processing.

Conditions to avoid

**Conditions to avoid** None known based on information supplied.

Incompatible materials

**Incompatible materials** None known based on information supplied.

Hazardous decomposition products

**Hazardous decomposition products** None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

Information on the 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** No information available.

Acute toxicity**Numerical measures of toxicity**

0.095 % of the mixture consists of ingredient(s) of unknown acute oral toxicity  
0.095 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

0.095 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)  
0.095 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)  
0.095 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

**Delayed and immediate effects and also chronic effects from short and long term exposure**

<b>Skin corrosion/irritation</b>	No information available.
<b>Serious eye damage/irritation</b>	No information available.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.

**12. ECOLOGICAL INFORMATION****Toxicity**

0.095 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Ecotoxicity****Persistence and degradability**

No information available.

**Bioaccumulative potential**

No information available.

**Mobility**

**Mobility in soil** No information available.

**Mobility** 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

<b>IMDG</b>	Not regulated
<b>Transport in bulk according to Annex II of MARPOL and the IBC Code</b>	No information available
<b>IATA</b>	Not regulated
<b>RID</b>	Not regulated
<b>ADR</b>	Not regulated
<b>ADN</b>	Not regulated
<b>Special precautions for user</b>	Special provisions from the regulations relative to the specified mode of transport are noted by numeric code. Refer to the regulations for the full text of special provisions.

## 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>Prepared By</b>	Bio-Rad Laboratories, Environmental Health and Safety
<b>Revision date</b>	19-Mar-2021
<b>Revision Note</b>	SDS sections updated. 1.

### 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
C	Carcinogen		

#### **Disclaimer**

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**End of Safety Data Sheet**





# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
The Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Revision date 19-Mar-2021

Revision Number 1

## 1. IDENTIFICATION

### Product identifier

**Product Name** Bio-Plex Standard Diluent

### Other means of identification

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

**Registration Number(s)** No information available

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

**Recommended use** Laboratory chemicals

### Supplier's details

#### Corporate Headquarters

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

#### Manufacturer

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

#### Legal Entity / Contact Address

Bio-Rad Laboratories Pvt. Ltd.  
Bio-Rad House  
86-87, Udyog Vihar Phase IV Gurgaon  
122005  
Haryana India

Bio-Rad Laboratories (Pty) Ltd.  
34 Bolton Road  
Parkwood, Johannesburg 2193  
South Africa

### Technical Service

India: 91-124-4029300 or 1-800-180-1224  
South Africa: 27-11-442-85-08  
India: support.india@bio-rad.com  
South Africa: cdg\_techsupport\_eemea@bio-rad.com

### Emergency telephone number

**24 Hour Emergency Phone Number** CHEMTREC India: 000-800-100-7141  
CHEMTREC South Africa: 0-800-983-611

## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

### GHS Label elements, including precautionary statements

### Other hazards which do not result in classification

No information available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Substance

Not applicable

### Mixture

## 4. FIRST AID MEASURES

### Description of necessary first aid measures

<b>Inhalation</b>	Remove to fresh air.
<b>Skin contact</b>	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Ingestion</b>	Rinse mouth thoroughly with water.

### For emergency responders

<b>Self-protection of the first aider</b>	No information available.
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### Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	No information available.
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### Indication of immediate medical attention and special treatment needed, if necessary

<b>Note to physicians</b>	Treat symptomatically.
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## 5. FIREFIGHTING MEASURES

### Suitable Extinguishing Media

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
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**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.
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### Specific hazards arising from the chemical

<b>Specific hazards arising from the chemical</b>	No information available.
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### Special protective actions for fire-fighters

<b>Special protective equipment and precautions for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Ensure adequate ventilation.
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### Environmental precautions

<b>Environmental precautions</b>	See Section 12 for additional Ecological Information.
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### Methods and material for containment and cleaning up

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Pick up and transfer to properly labeled containers.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

## 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** Keep containers tightly closed in a dry, cool and well-ventilated place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

**Exposure guidelines** 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).

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

**Hand protection** Wear suitable gloves.

**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>Odour</b>	Odourless
<b>Appearance</b>	Liquid	<b>Odour threshold</b>	No information available
<b>Colour</b>	colourless		
<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 information available	
<b>Boiling point / boiling range</b>	100 °C / 212 °F		
<b>Flash point</b>		No information available	
<b>Evaporation rate</b>		No information available	
<b>Flammability (solid, gas)</b>		No information available	
<b>Upper/lower flammability or explosive limits</b>			
<b>Upper flammability or explosive limits</b>	Not applicable		
<b>Lower flammability or explosive limits</b>	Not applicable		
<b>Vapour pressure</b>		No information available	
<b>Vapour density</b>		No information available	
<b>Relative density</b>		No information available	
<b>Solubility(ies)</b>			
<b>Water solubility</b>	Miscible in water		

Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity	
Kinematic viscosity	No information available
Dynamic viscosity	

Other information**10. STABILITY AND REACTIVITY**Reactivity

Reactivity No information available.

Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None  
Sensitivity to static discharge None.

Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Conditions to avoid

Conditions to avoid None known based on information supplied.

Incompatible materials

Incompatible materials None known based on information supplied.

Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

**11. TOXICOLOGICAL INFORMATION**Information on the 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 No information available.

Acute toxicity**Numerical measures of toxicity**

0.018 % of the mixture consists of ingredient(s) of unknown acute oral toxicity  
0.018 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

0.018 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)  
0.018 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)  
0.018 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

**Delayed and immediate effects and also chronic effects from short and long term exposure**

<b>Skin corrosion/irritation</b>	No information available.
<b>Serious eye damage/irritation</b>	No information available.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.

**12. ECOLOGICAL INFORMATION****Toxicity**

0.018 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Ecotoxicity****Persistence and degradability**

No information available.

**Bioaccumulative potential**

No information available.

**Mobility**

**Mobility in soil** No information available.

**Mobility** 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

<b>IMDG</b>	Not regulated
<b>Transport in bulk according to Annex II of MARPOL and the IBC Code</b>	No information available
<b>IATA</b>	Not regulated
<b>RID</b>	Not regulated
<b>ADR</b>	Not regulated
<b>ADN</b>	Not regulated
<b>Special precautions for user</b>	Special provisions from the regulations relative to the specified mode of transport are noted by numeric code. Refer to the regulations for the full text of special provisions.

## 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>Prepared By</b>	Bio-Rad Laboratories, Environmental Health and Safety
<b>Revision date</b>	19-Mar-2021
<b>Revision Note</b>	SDS sections updated. 1.

### 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
C	Carcinogen		

#### **Disclaimer**

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**End of Safety Data Sheet**

## 1. IDENTIFICATION

**Product identifier**

**Product Name** Streptavidin-PE

**Other means of identification**

**Catalogue Number(s)** 171304501, 9704418, 9703887, 9703897

**Registration Number(s)** No information available

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

**Recommended use** Laboratory chemicals

**Supplier's details**

**Corporate Headquarters**

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

**Manufacturer**

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

**Legal Entity / Contact Address**

Bio-Rad Laboratories Pvt. Ltd.  
Bio-Rad House  
86-87, Udyog Vihar Phase IV Gurgaon  
122005  
Haryana India

Bio-Rad Laboratories (Pty) Ltd.  
34 Bolton Road  
Parkwood, Johannesburg 2193  
South Africa

**Technical Service**

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South Africa: 27-11-442-85-08  
India: support.india@bio-rad.com  
South Africa: cdg\_techsupport\_eemea@bio-rad.com

**Emergency telephone number**

**24 Hour Emergency Phone Number** CHEMTREC India: 000-800-100-7141  
CHEMTREC South Africa: 0-800-983-611

## 2. HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

**GHS Label elements, including precautionary statements**

**Other hazards which do not result in classification**

No information available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance**

Not applicable

**Mixture**

Chemical name	CAS No	Weight-%
Water 7732-18-5	7732-18-5	98.863
Trade secret	-	0 - 10%
Trade secret	-	0 - 10%
Trade secret	-	0 - 10%
Avidin 9013-20-1	9013-20-1	0.02

**4. FIRST AID MEASURES****Description of necessary first aid measures**

<b>Inhalation</b>	Remove to fresh air.
<b>Skin contact</b>	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Ingestion</b>	Rinse mouth thoroughly with water.

**For emergency responders**

**Self-protection of the first aider** No information available.

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

**Symptoms** No information available.

**Indication of immediate medical attention and special treatment needed, if necessary**

**Note to physicians** Treat symptomatically.

**5. FIREFIGHTING MEASURES****Suitable Extinguishing Media**

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

**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

**Specific hazards arising from the chemical**

**Specific hazards arising from the chemical** No information available.

**Special protective actions for fire-fighters**

**Special protective equipment and precautions 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** Ensure adequate ventilation.

**Environmental precautions**

**Environmental precautions** See Section 12 for additional Ecological 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.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

## 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** Keep containers tightly closed in a dry, cool and well-ventilated place.

**Incompatible materials** Metals.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure guidelines** 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).

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

**Hand protection** Wear suitable gloves.

**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>Odour</b>	Odourless
<b>Appearance</b>	aqueous solution	<b>Odour threshold</b>	No information available
<b>Colour</b>	colourless		

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks • Method</u></b>
pH	7.4	

Melting point / freezing point	0 °C / 32 °F	
Boiling point / boiling range	100 °C / 212 °F	
Flash point		No information available
Evaporation rate		No information available
Flammability (solid, gas)		No information available
Upper/lower flammability or explosive limits		
Upper flammability or explosive limits	Not applicable	
Lower flammability or explosive limits	Not applicable	
Vapour pressure		No information available
Vapour density		No information available
Relative density		No information available
Solubility(ies)		
Water solubility	Miscible in water	
Solubility in other solvents		No information available
Partition coefficient		No information available
Autoignition temperature		No information available
Decomposition temperature		No information available
Viscosity		
Kinematic viscosity		No information available
Dynamic viscosity		

Other information**10. STABILITY AND REACTIVITY**Reactivity

Reactivity No information available.

Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None  
Sensitivity to static discharge None.

Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Conditions to avoid

Conditions to avoid None known based on information supplied.

Incompatible materials

Incompatible materials Metals.

Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

**11. TOXICOLOGICAL INFORMATION**Information on the likely routes of exposure

## Product Information

Inhalation 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>	Specific test data for the substance or mixture is not available.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available.
<b>Symptoms</b>	No information available.

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

0.02 % of the mixture consists of ingredient(s) of unknown acute oral toxicity  
 0.02 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity  
 0.02 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)  
 0.02 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)  
 0.02 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Water	> 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

**Delayed and immediate effects and also chronic effects from short and long term exposure**

<b>Skin corrosion/irritation</b>	No information available.
<b>Serious eye damage/irritation</b>	No information available.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.

## 12. ECOLOGICAL INFORMATION

**Toxicity**

0.02 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Ecotoxicity**

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

		<i>Pimephales promelas</i> LC50: =12946mg/L (96h, <i>Lepomis macrochirus</i> ) LC50: =7050mg/L (96h, <i>Pimephales promelas</i> )	
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**Persistence and degradability**

No information available.

**Bioaccumulative potential**

No information available.

**Mobility****Mobility in soil** No information available.**Mobility** 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

**IMDG** Not regulated  
**Transport in bulk according to Annex II of MARPOL and the IBC Code** No information available

**IATA** Not regulated**RID** Not regulated**ADR** Not regulated**ADN** Not regulated**Special precautions for user** Special provisions from the regulations relative to the specified mode of transport are noted by numeric code. Refer to the regulations for the full text of special provisions.

### 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****Prepared By** Bio-Rad Laboratories, Environmental Health and Safety**Revision date** 15-Dec-2020**Revision Note** \*\*\* Indicates this information has changed since the previous revision.**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
C	Carcinogen		

**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**