## KIT SAFETY DATA SHEET



**Kit Product Name** Bio-Plex Pro Human MMP Panel

Kit Catalogue Number(s) 171AM001M, 171BM001M, 171BM002M, 171BM003M, 171BM004M, 171BM005M,

171BM006M, 171BM007M, 171BM008M, LW00000053

Revision date 14-Feb-2024

## **Kit Contents**

0-(-1	Dun dent Manna
(-)	Product Name
9723892, 9703892, 9704415, 10014822, 10014823	Bio-Plex Assay Buffer
10022595, 10022596, 10023357, 10023358, 10040215, 10040217,	Bio-Plex Pro QC Control
10041524	
171304040, 10027955, 12006121, 12005850	Bio-Plex Pro Assays 10X Wash Buffer
	Bio-Plex Pro Human Detection Ab (20x)
10022409, 10022410, 10022411, 10022412, 10022413, 10022414,	
10022415, 10022416, 10022417, 10022418, 10022419, 10022454,	
10023337, 10023338, 10023339, 10023340, 10023341, 10023342,	
10023343, 10023344, 10023345, 10023346, 10023347, 10023348,	
10023349, 10023350, 10023351, 10023352, 10023362, 10040203,	
10040204, 10040205, 10040206, 10040207, 10040208, 10040209,	
10040210, 10040211, 10040212, 10040213	
171DM0001, 171D10001, 10004929, 171D10002, 10002134,	Bio-Plex Standard / Control
10002842, 171110002, 10001855, 171D10501, 171D10502, 171110501,	
171110502, 171DC5000, 171DC5001, 171DA0001, 171DA0501,	
171170050, 171D50001, 171D60001, 171I50001, 171I60001,	
10040214, 10040216, 171DM0502, 171DM0501, 12005502, 12005503	
10014639, 9703894, 9704417, 10014640	Bio-Plex Detection Antibody Diluent
10014641, 9704423, 9703895, 171305043, 10022628, 10041561,	Bio-Plex Sample Diluent
12005851	·
9703888, 9704424, 171305042, 171304080M, 10022368, 12005853	Bio-Plex Standard Diluent
171304501, 9704418, 9703887, 9703897	Streptavidin-PE
10020566, 10020556, 10020557, 10020558, 10021202, 10022437,	Bio-Plex Pro Conjugated Magnetic Beads (20X)
10022421, 10022422, 10022423, 10022424, 10022425, 10022426,	
10022427, 10022428, 10022429, 10022430, 10022431, 10022432,	
10022433, 10022434, 10022435, 10022436, 10023361, 10023321,	
10023322, 10023323, 10023324, 10023325, 10023326, 10023327,	
10023328, 10023329, 10023330, 10023331, 10023333, 10023334,	
10023335, 10040192, 10040193, 10040194, 10040195, 10040196,	
10040197, 10040198, 10040199, 10040200, 10040201, 10040202	

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## SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 14-Nov-2023 Revision Number 1.5

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name Bio-Plex Assay Buffer

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

Nanoforms Not applicable

Pure substance/mixture Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use Laboratory chemicals

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

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

<u>Legal Entity / Contact Address</u> Bio-Rad Laboratories Ltd

The Junction Station Road Watford, WD17 1ET

UK

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

For further information, please contact

**Technical Service** 00800 00246 723

Ireland: Techsupport.UK@bio-rad.com India: support.india@bio-rad.com

South Africa: cdg\_techsupport\_eemea@bio-rad.com

1.4. Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC Ireland: 353-19014670

CHEMTREC India: 000-800-100-7141 CHEMTREC South Africa: 0-800-983-611

### **SECTION 2: Hazards identification**

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

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#### 2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

#### **Hazard statements**

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

#### 2.3. Other hazards

## **SECTION 3: Composition/information on ingredients**

#### 3.1 Substances

Not applicable

#### 3.2 Mixtures

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

### Full text of H- and EUH-phrases: see section 16

#### **Acute Toxicity Estimate**

No information available

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

### **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

**Inhalation** Remove to fresh air.

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

Consult a doctor.

**Skin contact** In the case of skin irritation or allergic reactions see a doctor. Wash skin with soap and

water.

**Ingestion** Rinse mouth.

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

**Symptoms** No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors Treat symptomatically.

### **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

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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.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the

chemical

No information available.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters

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

### **SECTION 6: Accidental release measures**

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

**For emergency responders** Use personal protection recommended in Section 8.

6.2. Environmental precautions

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

6.3. 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**Take up mechanically, placing in appropriate containers for disposal.

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

6.4. Reference to other sections

**Reference to other sections**See section 8 for more information. See section 13 for more information.

### **SECTION 7: Handling and storage**

7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation.

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

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

### **SECTION 8: Exposure controls/personal protection**

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8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational

exposure limits established by the region specific regulatory bodies.

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific

regulatory bodies.

Derived No Effect Level (DNEL) Predicted No Effect Concentration No information available.

(PNEC)

8.2. Exposure controls

Personal protective equipment

**Eye/face protection** No special protective equipment required.

**Skin and body protection**No special protective equipment required.

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.

**Environmental exposure controls** No information available.

### **SECTION 9: Physical and chemical properties**

9.1. Information on basic physical and chemical properties

Physical state Liquid

Appearance aqueous solution colourless
Odour Odourless.

Odour threshold No information available

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

Melting point / freezing point 0 °C

Initial boiling point and boiling range100 °C

Flammability No data available None known Flammability Limit in Air None known

Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

Flash pointNo data availableNone knownAutoignition temperatureNo data availableNone knownDecomposition temperatureNone known

pH 7.4

pH (as aqueous solution) No data available No information available

Kinematic viscosityNo data availableNone knownDynamic viscosityNo data availableNone known

Water solubilityMiscible in waterSolubility(ies)No data availableNone knownPartition coefficientNo data availableNone knownVapour pressureNo data availableNone known

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Relative density No data available None known

Bulk density

Liquid Density

No data available

No data available

Relative vapour density

No data available

None known

Particle characteristics

Particle Size No information available Particle Size Distribution No information available

9.2. Other information

9.2.1. Information with regards to physical hazard classes

Not applicable

9.2.2. Other safety characteristics

No information available

## **SECTION 10: Stability and reactivity**

10.1. Reactivity

**Reactivity** No information available.

10.2. Chemical stability

**Stability** Stable under normal conditions.

**Explosion data** 

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

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions 
Avoid contact with metals. This product contains Sodium azide. Sodium azide can react with

Copper, Brass, Lead, and solder in piping systems to form explosive compounds and toxic

gases.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Incompatible materials Metals.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

### **SECTION 11: Toxicological information**

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Information on likely routes of exposure

#### **Product Information**

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

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

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

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

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Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** No information available.

Acute toxicity

**Numerical measures of toxicity** 

No information available

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

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

Serious eye damage/eye irritation No information available.

**Respiratory or skin sensitisation** 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.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

**Endocrine disrupting properties** This product does not contain any known or suspected endocrine disruptors.

11.2.2. Other information

Other adverse effects No information available.

**SECTION 12: Ecological information** 

12.1. Toxicity

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

**Unknown aquatic toxicity**Contains 0 % of components with unknown hazards to the aquatic environment.

12.2. Persistence and degradability

Persistence and degradability No information available.

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#### 12.3. Bioaccumulative potential

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

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

12.6. Endocrine disrupting properties

**Endocrine disrupting properties** No information available.

#### 12.7. Other adverse effects

No information available.

## **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Waste from residues/unused

products

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. Flush pipes with water frequently if discarding solutions

containing Sodium azide into metal piping systems.

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

### **SECTION 14: Transport information**

**IATA** 

14.1 UN number or ID numberNot regulated14.2 UN proper shipping nameNot regulated14.3 Transport hazard class(es)Not regulated14.4 Packing groupNot regulated

14.5 Environmental hazards Not applicable

14.6 Special Precautions for Users

Special Provisions None

IMDG

14.1 UN number or ID number
14.2 UN proper shipping name
14.3 Transport hazard class(es)
14.4 Packing group
14.5 Environmental hazards
Not regulated Not regulated Not applicable

14.6 Special Precautions for Users

Special Provisions Nor

**14.7 Maritime transport in bulk** No information available according to IMO instruments

<u>RID</u>

14.1UN numberNot regulated14.2UN proper shipping nameNot regulated14.3Transport hazard class(es)Not regulated14.4Packing groupNot regulated14.5Environmental hazardsNot applicable

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14.6 Special Precautions for Users

**Special Provisions** None

ADR

14.1 UN number or ID number Not regulated Not regulated 14.2 UN proper shipping name Not regulated 14.3 Transport hazard class(es) 14.4 Packing group Not regulated 14.5 Environmental hazards Not applicable

14.6 Special Precautions for Users

**Special Provisions** None

### **SECTION 15: Regulatory information**

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

#### National regulations

Germany

Water hazard class (WGK) non-hazardous to water (nwg)

### **European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

#### Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

### **Persistent Organic Pollutants**

Not applicable

#### Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

**International Inventories** Contact supplier for inventory compliance status

15.2. Chemical safety assessment

**Chemical Safety Report** No information available

### **SECTION 16: Other information**

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

SVHC: Substances of Very High Concern for Authorisation:

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

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

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Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

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

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)

European Chemicals Agency (ECHA) (ECHA\_API)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

National Institute of Technology and Evaluation (NITE)

Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications

Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme

Organisation for Economic Co-operation and Development Screening Information Data Set

World Health Organization

**Revision Note** Reformatted and updated existing information

Revision date 14-Nov-2023

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 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** 

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## SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 15-Aug-2023 Revision Number 1.2

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name Bio-Plex Pro QC Control

Catalogue Number(s) 10022595, 10022596, 10023357, 10023358, 10040215, 10040217, 10041524

Nanoforms Not applicable

Pure substance/mixture Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use Laboratory chemicals

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

<u>Corporate Headquarters</u> <u>Mar</u>

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

USA

<u>Manufacturer</u>

Bio-Rad Laboratories, Life Science Group 2000 Alfred Nobel Drive

Hercules, California 94547

USA

Legal Entity / Contact Address
Bio-Rad Laboratories Ltd

The Junction Station Road Watford, WD17 1ET

UK

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

For further information, please contact

**Technical Service** 00800 00246 723

Ireland: Techsupport.UK@bio-rad.com India: support.india@bio-rad.com

South Africa: cdg\_techsupport\_eemea@bio-rad.com

1.4. Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC Ireland: 353-19014670

CHEMTREC India: 000-800-100-7141 CHEMTREC South Africa: 0-800-983-611

### **SECTION 2: Hazards identification**

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

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#### 2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

#### **Hazard statements**

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

### 2.3. Other hazards

## **SECTION 3: Composition/information on ingredients**

#### 3.1 Substances

Not applicable

#### 3.2 Mixtures

Chemical name	Weight-%	REACH registration	EC No (EU	Classification according	Specific	M-Factor	M-Factor
		number	Index No)	to Regulation (EC) No.	concentration		(long-term)
				1272/2008 [CLP]	limit (SCL)		
Trade secret	5 - 10	No data available	Listed	No data available	-	-	-
			1				

#### Full text of H- and EUH-phrases: see section 16

#### **Acute Toxicity Estimate**

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50	Inhalation LC50 - 4	Inhalation LC50 - 4	Inhalation LC50 - 4
		mg/kg	hour - dust/mist - mg/L	hour - vapour - mg/L	hour - gas - ppm
Trade secret	3000	10000	Inhalation LC50 Rat	>42	Inhalation LC50 Rat
			>42 mg/L 1 h (no		>42 mg/L 1 h (no
			deaths occurred,		deaths occurred,
			aerosol, Source:		aerosol, Source:
			ECHA_API)		ECHA_API)

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

### **SECTION 4: First aid measures**

### 4.1. Description of first aid measures

**Inhalation** Remove to fresh air.

Eye contact Call a doctor.

**Skin contact** Wash with soap and water.

**Ingestion** Call a doctor.

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

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Bio-Plex Pro QC Control Revision date 15-Aug-2023

**Symptoms** No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors Treat symptomatically.

### **SECTION 5: Firefighting measures**

5.1. 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.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the

chemical

No information available.

5.3. Advice for firefighters

Special protective equipment and

precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

### **SECTION 6: Accidental release measures**

6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** Ensure adequate ventilation.

6.2. Environmental precautions

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

6.3. 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**Clean contaminated surface thoroughly.

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

6.4. Reference to other sections

**Reference to other sections** See section 8 for more information. See section 13 for more information.

### **SECTION 7: Handling and storage**

7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation.

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

7.2. Conditions for safe storage, including any incompatibilities

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**Storage Conditions** 

Keep container tightly closed in a dry and well-ventilated place.

#### 7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

### **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

#### **Exposure Limits**

Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Trade secret	-	-	-	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>

#### **Biological occupational exposure limits**

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

Derived No Effect Level (DNEL)
Predicted No Effect Concentration

(PNEC)

No information available.

#### 8.2. Exposure controls

#### Personal protective equipment

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

**Hand protection** Wear suitable gloves.

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

exceeded or irritation is experienced, ventilation and evacuation may be required.

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

**Environmental exposure controls** No information available.

### **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

Physical state Solid
Appearance solid
Colour white
Odour Odourless.

Odour threshold No information available

Property <u>Values</u> <u>Remarks • Method</u>

Melting point / freezing pointNo data availableNone knownInitial boiling point and boiling rangeNo data availableNone knownFlammabilityNo data availableNone known

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None known

None known

None known

None known

Flammability Limit in Air

Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

Flash pointNo data availableNone knownAutoignition temperatureNo data availableNone known

Decomposition temperature

pH No data available PH (as aqueous solution) No data available

pH (as aqueous solution)

No data available

No information available

No data available

No data available

None known

Kinematic viscosity
Dynamic viscosity
Water solubility

No data available
No data available
Soluble in water

Solubility(ies)No data availableNone knownPartition coefficientNo data availableNone knownVapour pressureNo data availableNone knownRelative densityNo data availableNone known

Bulk density

Bulk density

No data available

No data available

No data available

Relative vapour density

No data available

None known

Particle characteristics

Particle Size No information available Particle Size Distribution No information available

9.2. Other information

### 9.2.1. Information with regards to physical hazard classes

Not applicable

#### 9.2.2. Other safety characteristics

No information available

## **SECTION 10: Stability and reactivity**

10.1. Reactivity

**Reactivity** No information available.

10.2. Chemical stability

**Stability** Stable under normal conditions.

**Explosion data** 

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

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

### **SECTION 11: Toxicological information**

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### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

**Product Information** 

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

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

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

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

Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** No information available.

Acute toxicity

Numerical measures of toxicity

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

ATEmix (oral) 3,915.40 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 as well as chronic effects from short and long-term exposure

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

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

**Respiratory or skin sensitisation** 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.

### 11.2. Information on other hazards

### 11.2.1. Endocrine disrupting properties

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**Endocrine disrupting properties** 

This product does not contain any known or suspected endocrine disruptors.

11.2.2. Other information

Other adverse effects No information available.

### **SECTION 12: Ecological information**

12.1. Toxicity

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

**Unknown aquatic toxicity**Contains 0 % of components with unknown hazards to the aquatic environment.

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

### 12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

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

12.4. Mobility in soil

Mobility in soil No information available.

### 12.5. Results of PBT and vPvB assessment

### PBT and vPvB assessment

Chemical name	PBT and vPvB assessment	
Trade secret	The substance is not PBT / vPvB	

#### 12.6. Endocrine disrupting properties

**Endocrine disrupting properties** No information available.

### 12.7. Other adverse effects

No information available.

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### **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Waste from residues/unused

products

Dispose of waste in accordance with environmental legislation. Dispose of in accordance

with local regulations.

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

### **SECTION 14: Transport information**

#### IATA

14.1UN number or ID numberNot regulated14.2UN proper shipping nameNot regulated14.3Transport hazard class(es)Not regulated14.4Packing groupNot regulated14.5Environmental hazardsNot applicable

14.6 Special Precautions for Users

Special Provisions None

#### **IMDG**

14.1 UN number or ID number
14.2 UN proper shipping name
14.3 Transport hazard class(es)
14.4 Packing group
14.5 Environmental hazards
Not regulated Not regulated Not applicable

14.6 Special Precautions for Users

Special Provisions None

14.7 Maritime transport in bulk No information available

according to IMO instruments

#### RID

14.1UN numberNot regulated14.2UN proper shipping nameNot regulated14.3Transport hazard class(es)Not regulated14.4Packing groupNot regulated14.5Environmental hazardsNot applicable

14.6 Special Precautions for Users

Special Provisions None

#### ADR

14.1 UN number or ID numberNot regulated14.2 UN proper shipping nameNot regulated14.3 Transport hazard class(es)Not regulated14.4 Packing groupNot regulated14.5 Environmental hazardsNot applicable

14.6 Special Precautions for Users

Special Provisions None

### **SECTION 15: Regulatory information**

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

### National regulations

#### **France**

Occupational Illnesses (R-463-3, France)

Chemical name	French RG number	Title
Trade secret	RG 78	-

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#### Germany

Water hazard class (WGK) slightly hazardous to water (WGK 1)

#### **European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

#### Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

#### **Persistent Organic Pollutants**

Not applicable

#### Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

EU - Plant Protection Products (1107/2009/EC)

Chemical name	EU - Plant Protection Products (1107/2009/EC)	
Trade secret -	Plant protection agent	

Biocidal Products Regulation (EU) No 528/2012 (BPR)

Chemical name	Biocidal Products Regulation (EU) No 528/2012 (BPR)	
Trade secret -	Product-type 1: Human hygiene	

International Inventories Contact supplier for inventory compliance status

### 15.2. Chemical safety assessment

Chemical Safety Report No information available

### **SECTION 16: Other information**

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

### Legend

SVHC: Substances of Very High Concern for Authorisation:

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

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value \* Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method

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Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

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

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)

European Chemicals Agency (ECHA) (ECHA\_API)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

National Institute of Technology and Evaluation (NITE)

Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications

Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme

Organisation for Economic Co-operation and Development Screening Information Data Set

World Health Organization

Revision Note Reformatted and updated existing information

Revision date 15-Aug-2023

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 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** 

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## SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 07-Feb-2024 Revision Number 2

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name Bio-Plex Pro Assays 10X Wash Buffer

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

Nanoforms Not applicable

Pure substance/mixture Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use Laboratory chemicals

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Corporate Headquarters Manufac

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 Ltd

The Junction Station Road Watford, WD17 1ET

UK

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

For further information, please contact

**Technical Service** 00800 00246 723

Ireland: Techsupport.UK@bio-rad.com India: support.india@bio-rad.com

South Africa: cdg\_techsupport\_eemea@bio-rad.com

1.4. Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC Ireland: 353-19014670

CHEMTREC India: 000-800-100-7141 CHEMTREC South Africa: 0-800-983-611

### **SECTION 2: Hazards identification**

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

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Revision date 07-Feb-2024

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

**Hazard statements** 

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

### 2.3. Other hazards

## **SECTION 3: Composition/information on ingredients**

#### 3.1 Substances

Not applicable

#### 3.2 Mixtures

ſ	Chemical name	Weight-%	REACH registration	EC No (EU	Classification according	Specific	M-Factor	M-Factor
			number	Index No)	to Regulation (EC) No.	concentration		(long-term)
					1272/2008 [CLP]	limit (SCL)		
ſ	Trade secret	5 - 10	No data available	Listed	No data available	-	-	-
1								

#### Full text of H- and EUH-phrases: see section 16

#### **Acute Toxicity Estimate**

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50	Inhalation LC50 - 4	Inhalation LC50 - 4	Inhalation LC50 - 4
		mg/kg	hour - dust/mist - mg/L	hour - vapour - mg/L	hour - gas - ppm
Trade secret	3000	10000	Inhalation LC50 Rat	>42	Inhalation LC50 Rat
			>42 mg/L 1 h (no		>42 mg/L 1 h (no
			deaths occurred,		deaths occurred,
			aerosol, Source:		aerosol, Source:
			ECHA_API)		ECHA_API)

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

### **SECTION 4: First aid measures**

### 4.1. Description of first aid measures

**Inhalation** Remove to fresh air.

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

Consult a doctor.

**Skin contact** In the case of skin irritation or allergic reactions see a doctor. Wash skin with soap and

water.

**Ingestion** Rinse mouth.

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4.2. Most important symptoms and effects, both acute and delayed

**Symptoms** No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors Treat symptomatically.

### **SECTION 5: Firefighting measures**

5.1. Extinguishing media

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.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the

chemical

No information available.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

### SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** Ensure adequate ventilation.

**For emergency responders** Use personal protection recommended in Section 8.

6.2. Environmental precautions

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

6.3. 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**Take up mechanically, placing in appropriate containers for disposal.

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

6.4. Reference to other sections

**Reference to other sections** See section 8 for more information. See section 13 for more information.

## **SECTION 7: Handling and storage**

7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation.

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

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Revision date 07-Feb-2024

### 7.2. Conditions for safe storage, including any incompatibilities

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

#### 7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

### **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

#### **Exposure Limits**

Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Trade secret	-	-	-	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>

#### **Biological occupational exposure limits**

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

Derived No Effect Level (DNEL)
Predicted No Effect Concentration

No information available.

(PNEC)

#### 8.2. Exposure controls

Personal protective equipment

**Eye/face protection** No special protective equipment required.

**Skin and body protection**No special protective equipment required.

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.

**Environmental exposure controls** No information available.

### **SECTION 9: Physical and chemical properties**

9.1. Information on basic physical and chemical properties

Physical state Liquid

Appearance aqueous solution
Colour colourless
Odour Odourless.

Odour threshold No information available

Property Values Remarks • Method

Melting point / freezing point No data available None known

Initial boiling point and boiling range100 °C

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### **Bio-Plex Pro Assays 10X Wash Buffer**

Revision date 07-Feb-2024

No data available **Flammability** None known Flammability Limit in Air None known

No data available

No data available

Upper flammability or explosive

Lower flammability or explosive No data available

limits

Flash point No data available None known No data available **Autoignition temperature** None known **Decomposition temperature** None known

7 4

No data available pH (as aqueous solution) Kinematic viscosity No data available Dynamic viscosity No data available Water solubility Miscible in water

Solubility(ies) No data available Partition coefficient No data available Vapour pressure No data available Relative density No data available **Bulk density** No data available **Liquid Density** No data available

Relative vapour density **Particle characteristics** 

No information available **Particle Size Particle Size Distribution** No information available

9.2. Other information

9.2.1. Information with regards to physical hazard classes

Not applicable

9.2.2. Other safety characteristics

No information available

## **SECTION 10: Stability and reactivity**

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

**Explosion data** 

Sensitivity to mechanical impact None. Sensitivity to static discharge

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Avoid contact with metals. This product contains Sodium azide. Sodium azide can react with

Copper, Brass, Lead, and solder in piping systems to form explosive compounds and toxic

No information available

None known

gases.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Metals. Incompatible materials

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

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### **SECTION 11: Toxicological information**

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

### Information on likely routes of exposure

**Product Information** 

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

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

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

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

Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** No information available.

Acute toxicity

**Numerical measures of toxicity** 

No information available

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

**ATEmix (oral)** 34,207.50 mg/kg

**Component Information** 

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 as well as chronic effects from short and long-term exposure

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

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

**Respiratory or skin sensitisation** 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.

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### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

**Endocrine disrupting properties** This product does not contain any known or suspected endocrine disruptors.

#### 11.2.2. Other information

Other adverse effects No information available.

### **SECTION 12: Ecological information**

### 12.1. Toxicity

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

**Unknown aquatic toxicity**Contains 0 % of components with unknown hazards to the aquatic environment.

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

### 12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

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

12.4. Mobility in soil

Mobility in soil No information available.

### 12.5. Results of PBT and vPvB assessment

#### PBT and vPvB assessment

Chemical name	PBT and vPvB assessment
Trade secret	The substance is not PBT / vPvB

### 12.6. Endocrine disrupting properties

**Endocrine disrupting properties** No information available.

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### 12.7. Other adverse effects

No information available.

### **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Waste from residues/unused products

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. Flush pipes with water frequently if discarding solutions

containing Sodium azide into metal piping systems.

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

## **SECTION 14: Transport information**

#### IATA

14.1UN number or ID numberNot regulated14.2UN proper shipping nameNot regulated14.3Transport hazard class(es)Not regulated14.4Packing groupNot regulated14.5Environmental hazardsNot applicable

14.6 Special Precautions for Users

Special Provisions None

#### IMDG

14.1UN number or ID numberNot regulated14.2UN proper shipping nameNot regulated14.3Transport hazard class(es)Not regulated14.4Packing groupNot regulated14.5Environmental hazardsNot applicable

14.6 Special Precautions for Users

Special Provisions None

14.7 Maritime transport in bulk No information available according to IMO instruments

#### RID

14.1UN numberNot regulated14.2UN proper shipping nameNot regulated14.3Transport hazard class(es)Not regulated14.4Packing groupNot regulated14.5Environmental hazardsNot applicable

14.6 Special Precautions for Users

Special Provisions None

#### <u>ADR</u>

14.1 UN number or ID number
14.2 UN proper shipping name
14.3 Transport hazard class(es)
14.4 Packing group
14.5 Environmental hazards
Not regulated
Not regulated
Not regulated
Not applicable

14.6 Special Precautions for Users

Special Provisions None

### SECTION 15: Regulatory information

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

National regulations

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#### **France**

Occupational Illnesses (R-463-3, France)

Chemical name	French RG number	Title
Trade secret	RG 78	-

#### Germany

Water hazard class (WGK) slightly hazardous to water (WGK 1)

### **European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

#### Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

### **Persistent Organic Pollutants**

Not applicable

### Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

EU - Plant Protection Products (1107/2009/EC)

Chemical name	EU - Plant Protection Products (1107/2009/EC)	
Trade secret -	Plant protection agent	

Biocidal Products Regulation (EU) No 528/2012 (BPR)

Chemical name	Biocidal Products Regulation (EU) No 528/2012 (BPR)	
Trade secret -	Product-type 1: Human hygiene	

International Inventories Contact supplier for inventory compliance status

### 15.2. Chemical safety assessment

Chemical Safety Report No information available

### **SECTION 16: Other information**

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

#### Legend

SVHC: Substances of Very High Concern for Authorisation:

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

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value \* Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method

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Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

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

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)

European Chemicals Agency (ECHA) (ECHA\_API)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

National Institute of Technology and Evaluation (NITE)

Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications

Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme

Organisation for Economic Co-operation and Development Screening Information Data Set

World Health Organization

**Revision Note** SDS sections updated 2 12

Revision date 07-Feb-2024

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 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** 

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# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 15-Aug-2023 Revision Number 1.2

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

**Product Name** Bio-Plex Pro Human Detection Ab (20x)

Catalogue Number(s) 10022420, 10022404, 10022405, 10022406, 10022407, 10022408, 10022409, 10022410,

10022411, 10022412, 10022413, 10022414, 10022415, 10022416, 10022417, 10022418, 10022419, 10022454, 10023337, 10023338, 10023339, 10023340, 10023341, 10023342, 10023343, 10023344, 10023345, 10023346, 10023347, 10023348, 10023349, 10023350, 10023351, 10023352, 10023362, 10040203, 10040204, 10040205, 10040206, 10040207,

10040208, 10040209, 10040210, 10040211, 10040212, 10040213

Nanoforms Not applicable

Pure substance/mixture Mixture

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use Laboratory chemicals

Uses advised against No information available

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

<u>Corporate Headquarters</u> Bio-Rad Laboratories Inc.

1000 Alfred Nobel Drive Hercules, CA 94547

USA

<u>Manufacturer</u>

Bio-Rad Laboratories, Life Science Group

2000 Alfred Nobel Drive Hercules, California 94547

USA

**Legal Entity / Contact Address** 

Bio-Rad Laboratories Ltd

The Junction Station Road Watford, WD17 1ET

UK

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

For further information, please contact

**Technical Service** 00800 00246 723

Ireland: Techsupport.UK@bio-rad.com India: support.india@bio-rad.com

South Africa: cdg\_techsupport\_eemea@bio-rad.com

1.4. Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC Ireland: 353-19014670

CHEMTREC India: 000-800-100-7141 CHEMTREC South Africa: 0-800-983-611

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## **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

### 2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

#### **Hazard statements**

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

#### 2.3. Other hazards

## **SECTION 3: Composition/information on ingredients**

### 3.1 Substances

Not applicable

#### 3.2 Mixtures

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

Chemical name	Weight-%	REACH registration number	,	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Water 7732-18-5	50 - 100	No data available	231-791-2	No data available	-	-	-
Trade secret	0.3 - 0.99	No data available	Listed	No data available	-	-	-
Trade secret	0.1 - 0.299	No data available	Listed	No data available	-	-	-
Trade secret	0.1 - 0.299	No data available	Listed	No data available	1	-	-
Trade secret	0.01 - 0.099	No data available	Listed	Acute Tox. 2 (H300) Acute Tox. 1 (H310) (EUH032) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	-	-
Antibodies NO-CAS-81	0.01 - 0.099	No data available	-	No data available	-	-	-

#### Full text of H- and EUH-phrases: see section 16

#### **Acute Toxicity Estimate**

No information available

Chemical name	Oral LD50 mg/kg		Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Water 7732-18-5	89838.9	No data available	No data available	No data available	No data available
Trade secret	3000	10000	Inhalation LC50 Rat >42 mg/L 1 h (no deaths occurred, aerosol, Source: ECHA API)	>42	Inhalation LC50 Rat >42 mg/L 1 h (no deaths occurred, aerosol, Source: ECHA API)

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Chemical name	Oral LD50 mg/kg		Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Trade secret	8290	7940	Inhalation LC50 Rat >0.83 mg/L 4 h (no deaths occurred, dust, Source: ECHA_API) 0.83	>0.83	Inhalation LC50 Rat >0.83 mg/L 4 h (no deaths occurred, dust, Source: ECHA_API)
Trade secret	27	20	Inhalation LC50 Rat 0.054 - 0.52 mg/L 4 h (dust, Source: ECHA API)	0.054 - 0.52	Inhalation LC50 Rat 0.054 - 0.52 mg/L 4 h (dust, Source: ECHA_API)

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

### **SECTION 4: First aid measures**

### 4.1. Description of first aid measures

Inhalation Remove to fresh air.

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

Consult a doctor.

Skin contact In the case of skin irritation or allergic reactions see a doctor. Wash skin with soap and

water.

Ingestion Rinse mouth.

4.2. Most important symptoms and effects, both acute and delayed

**Symptoms** No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors Treat symptomatically.

### **SECTION 5: Firefighting measures**

5.1. 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.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the

chemical

No information available.

5.3. Advice for firefighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Special protective equipment and

precautions for fire-fighters Use personal protection equipment.

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### **SECTION 6: Accidental release measures**

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

**Personal precautions** Ensure adequate ventilation.

6.2. Environmental precautions

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

### 6.3. 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**Take up mechanically, placing in appropriate containers for disposal.

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

6.4. Reference to other sections

**Reference to other sections**See section 8 for more information. See section 13 for more information.

### **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation.

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

## 7.2. Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place.

### 7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

## **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters

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

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Trade secret	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>
	STEL: 0.3 mg/m <sup>3</sup>	STEL 0.3 mg/m <sup>3</sup>	D*	TWA: 0.1 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>
	*	H*		K*	*
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Trade secret	*	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	S+	TWA: 0.1 mg/m <sup>3</sup>
	STEL: 0.3 mg/m <sup>3</sup>	Ceiling: 0.3 mg/m <sup>3</sup>	H*	TWA: 0.1 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>
	TWA: 0.1 mg/m <sup>3</sup>		STEL: 0.3 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>	iho*
				Α*	
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Trade secret	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.1 ppm	TWA: 0.1 mg/m <sup>3</sup>

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	0==: 0.0	, ,			T) 0 ( 0	2.2	OTEL CO. / O
	STEL: 0.3 mg/m <sup>3</sup>			Peak: 0.4 mg/m <sup>3</sup>		0.3 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>
	*					: 0.1 ppm	
					STEL:	0.3 mg/m <sup>3</sup>	
Chemical name	Ireland		Italy MDLPS	Italy AIDII	Latvia		Lithuania
Trade secret	-		-	-	TWA:	5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>
		_					
Trade secret	TWA: 0.1 mg		TWA: 0.1 mg/m <sup>3</sup>	Ceiling: 0.29 mg/m <sup>3</sup>		0.1 mg/m <sup>3</sup>	O*
	STEL: 0.3 m	g/m³	STEL: 0.3 mg/m <sup>3</sup>	Ceiling: 0.11 ppm	STEL:	0.3 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>
	Sk*		cute*		P	\da*	STEL: 0.3 mg/m <sup>3</sup>
Chemical name	Luxembourg		Malta	Netherlands	Norway		Poland
Trade secret	Peau*		skin*	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>		STEL: 0.3 mg/m <sup>3</sup>
	STEL: 0.3 m	g/m³	STEL: 0.3 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>		TWA: 0.1 mg/m <sup>3</sup>
	TWA: 0.1 mg		TWA: 0.1 mg/m <sup>3</sup>	H*		J	skóra*
Chemical name	Portugal		Romania	Slovakia	Slo	ovenia	Spain
Trade secret	TWA: 0.1 mg	g/m³	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	TWA: (	0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>
	STEL: 0.3 m		STEL: 0.3 mg/m <sup>3</sup>	K*		0.3 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>
	Ceiling: 0.29 mg/m <sup>2</sup>		P*	Ceiling: 0.3 mg/m <sup>3</sup>	K*		vía dérmica*
	Ceiling: 0.11 p						
	Cutânea						
Chemical name		Sweden		Switzerland		United Kingdom	
Trade secret		NGV: 0.1 mg/m <sup>3</sup>		TWA: 0.2 mg/m <sup>3</sup>		TWA: 0.1 mg/m <sup>3</sup>	
	Bind	Bindande KGV: 0.3 mg/m <sup>3</sup>		STEL: 0.4 mg/m <sup>3</sup>		STEL: 0.3 mg/m <sup>3</sup>	
				Ç		Sk*	

### Biological occupational exposure limits

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

Derived No Effect Level (DNEL)
Predicted No Effect Concentration
(PNEC)

No information available.

8.2. Exposure controls

Personal protective equipment

**Eye/face protection** No special protective equipment required.

**Skin and body protection**No special protective equipment required.

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.

**Environmental exposure controls** No information available.

## **SECTION 9: Physical and chemical properties**

9.1. Information on basic physical and chemical properties

Physical state Liquid

Appearance aqueous solution
Colour colourless
Odour Odourless.

Odour threshold No information available

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None known

None known

**Property** Values Remarks • Method

Melting point / freezing point No data available None known Initial boiling point and boiling rangeNo data available None known Flammability No data available None known Flammability Limit in Air None known

Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

No data available None known Flash point **Autoignition temperature** No data available None known **Decomposition temperature** None known

7.4

pH (as aqueous solution) No data available No information available

Kinematic viscosity No data available **Dvnamic viscosity** No data available Water solubility Miscible in water

Solubility(ies) No data available None known **Partition coefficient** No data available None known Vapour pressure No data available None known Relative density No data available None known

No data available **Bulk density** No data available **Liquid Density** Relative vapour density No data available

None known

**Particle characteristics** 

**Particle Size** No information available **Particle Size Distribution** No information available

#### 9.2. Other information

### 9.2.1. Information with regards to physical hazard classes

Not applicable

### 9.2.2. Other safety characteristics

No information available

## **SECTION 10: Stability and reactivity**

10.1. Reactivity

No information available. Reactivity

10.2. Chemical stability

Stability Stable under normal conditions.

**Explosion data** 

Sensitivity to mechanical impact None. Sensitivity to static discharge

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

EGHS / BE Page 36 / 108 Hazardous decomposition products None known based on information supplied.

# **SECTION 11: Toxicological information**

## 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

## Information on likely routes of exposure

## **Product Information**

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

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

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

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

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

**Symptoms** No information available.

Acute toxicity

**Numerical measures of toxicity** 

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

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

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

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitisation No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

**Reproductive toxicity** No information available.

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

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## **Bio-Plex Pro Human Detection Ab (20x)**

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

**Aspiration hazard** No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties This product does not contain any known or suspected endocrine disruptors.

11.2.2. Other information

Other adverse effects No information available.

# **SECTION 12: Ecological information**

12.1. Toxicity

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

**Unknown aquatic toxicity**Contains 0.095 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Trade secret		LCE0: 5560 6090mg/l	Illicroorganisms	EC50: -1000mg/L (49h
Trade Secret	-	LC50: 5560 - 6080mg/L	<del>-</del>	EC50: =1000mg/L (48h,
		(96h, Lepomis		Daphnia magna)
		macrochirus)		EC50: 340.7 - 469.2mg/L
		LC50: =12946mg/L (96h,		(48h, Daphnia magna)
		Lepomis macrochirus)		
		LC50: 6020 - 7070mg/L		
		(96h, Pimephales		
		promelas)		
		LC50: =7050mg/L (96h,		
		Pimephales promelas)		
		LC50: 6420 - 6700mg/L		
		(96h, Pimephales		
		promelas)		
		LC50: 4747 - 7824mg/L		
		(96h, Oncorhynchus		
		mykiss)		
Trade secret	-	LC50: =0.8mg/L (96h,	-	-
		Oncorhynchus mykiss)		
		LC50: =0.7mg/L (96h,		
		Lepomis macrochirus)		
		LC50: =5.46mg/L (96h,		
		Pimephales promelas)		

## 12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

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

12.4. Mobility in soil

**Mobility in soil** No information available.

12.5. Results of PBT and vPvB assessment

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PBT and vPvB assessment No information available.

Chemical name	PBT and vPvB assessment	
Trade secret	The substance is not PBT / vPvB	
Trade secret	PBT assessment does not apply	
Trade secret	The substance is not PBT / vPvB	

## 12.6. Endocrine disrupting properties

**Endocrine disrupting properties** No information available.

#### 12.7. Other adverse effects

No information available.

# **SECTION 13: Disposal considerations**

## 13.1. Waste treatment methods

Waste from residues/unused products

Dispose of waste in accordance with environmental legislation. Dispose of in accordance

with local regulations.

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

# **SECTION 14: Transport information**

IATA

14.1 UN number or ID numberNot regulated14.2 UN proper shipping nameNot regulated14.3 Transport hazard class(es)Not regulated14.4 Packing groupNot regulated14.5 Environmental hazardsNot applicable

14.6 Special Precautions for Users

Special Provisions None

<u>IMDG</u>

14.1 UN number or ID number
14.2 UN proper shipping name
14.3 Transport hazard class(es)
14.4 Packing group
14.5 Environmental hazards
Not regulated Not regulated Not applicable

14.6 Special Precautions for Users

Special Provisions None

14.7 Maritime transport in bulk No information available

according to IMO instruments

**RID** 

14.1UN numberNot regulated14.2UN proper shipping nameNot regulated14.3Transport hazard class(es)Not regulated14.4Packing groupNot regulated14.5Environmental hazardsNot applicable

14.6 Special Precautions for Users

Special Provisions None

ADR

14.1 UN number or ID number
14.2 UN proper shipping name
14.3 Transport hazard class(es)
14.4 Packing group

Not regulated
Not regulated
Not regulated
Not regulated

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EU - Plant Protection Products (1107/2009/EC)

14.5 Environmental hazards

Not applicable

14.6 Special Precautions for Users

Special Provisions None

# **SECTION 15: Regulatory information**

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

## National regulations

Chemical name	French RG number	Title
Trade secret	RG 78	-

#### Germany

Water hazard class (WGK) non-hazardous to water (nwg)

## **European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

## Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

#### **Persistent Organic Pollutants**

Not applicable

## Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Chemical name

Not applicable

Trade secret -	Plant protection agent	
Chemical name	Biocidal Products Regulation (EU) No 528/2012 (BPR)	
Trade secret -	Product-type 1: Human hygiene	

International Inventories Contact supplier for inventory compliance status

## 15.2. Chemical safety assessment

Chemical Safety Report No information available

## **SECTION 16: Other information**

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

#### Legend

SVHC: Substances of Very High Concern for Authorisation:

## Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

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Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

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

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)

European Chemicals Agency (ECHA) (ECHA\_API)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

National Institute of Technology and Evaluation (NITE)

Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications

Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme

Organisation for Economic Co-operation and Development Screening Information Data Set

World Health Organization

**Revision Note** Reformatted and updated existing information

Revision date 15-Aug-2023

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 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** 

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# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 09-Aug-2023 Revision Number 1.5

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name Bio-Plex Standard / Control

Catalogue Number(s) 171DM0001, 171D10001, 10004929, 171D10002, 10002134, 10002842, 171I10002,

10001855, 171D10501, 171D10502, 171I10501, 171I10502, 171DC5000, 171DC5001, 171DA0001, 171DA0501, 171I70050, 171D50001, 171D60001, 171I50001, 171I60001,

10040214, 10040216, 171DM0502, 171DM0501, 12005502, 12005503

Nanoforms Not applicable

Pure substance/mixture Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use Laboratory chemicals

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

**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 Ltd The Junction Station Road Watford, WD17 1ET

UK

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

For further information, please contact

**Technical Service** 00800 00246 723

Ireland: Techsupport.UK@bio-rad.com India: support.india@bio-rad.com

South Africa: cdg\_techsupport\_eemea@bio-rad.com

1.4. Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC Ireland: 353-19014670

CHEMTREC India: 000-800-100-7141 CHEMTREC South Africa: 0-800-983-611

## **SECTION 2: Hazards identification**

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Revision date 09-Aug-2023

## 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

#### 2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

## **Hazard statements**

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

#### 2.3. Other hazards

# **SECTION 3: Composition/information on ingredients**

#### 3.1 Substances

Not applicable

## 3.2 Mixtures

Chemical name	Weight-%	REACH registration	EC No (EU	Classification according	Specific	M-Factor	M-Factor
		number	Index No)	to Regulation (EC) No.	concentration		(long-term)
				1272/2008 [CLP]	limit (SCL)		
Trade secret	5 - 10	No data available	Listed	No data available	-	-	-

## Full text of H- and EUH-phrases: see section 16

## **Acute Toxicity Estimate**

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50	Inhalation LC50 - 4	Inhalation LC50 - 4	Inhalation LC50 - 4
		mg/kg	hour - dust/mist - mg/L	hour - vapour - mg/L	hour - gas - ppm
Trade secret	3000	10000	Inhalation LC50 Rat >42 mg/L 1 h (no deaths occurred, aerosol, Source: ECHA API)	>42	Inhalation LC50 Rat >42 mg/L 1 h (no deaths occurred, aerosol, Source: ECHA API)

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

## **SECTION 4: First aid measures**

# 4.1. Description of first aid measures

**Inhalation** Remove to fresh air.

Eye contact Call a doctor.

**Skin contact** Wash with soap and water.

**Ingestion** Call a doctor.

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4.2. Most important symptoms and effects, both acute and delayed

Symptoms No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors Treat symptomatically.

# **SECTION 5: Firefighting measures**

5.1. Extinguishing media

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.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the

chemical

No information available.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

# **SECTION 6: Accidental release measures**

6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** Ensure adequate ventilation.

6.2. Environmental precautions

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

6.3. 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**Clean contaminated surface thoroughly.

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

6.4. Reference to other sections

**Reference to other sections** See section 8 for more information. See section 13 for more information.

# **SECTION 7: Handling and storage**

7.1. Precautions for safe handling

**Advice on safe handling** Ensure adequate ventilation.

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

7.2. Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

**Risk Management Methods (RMM)** The information required is contained in this Safety Data Sheet.

# **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

#### **Exposure Limits**

Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Trade secret	-	-	-	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>

#### Biological occupational exposure limits

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

**Derived No Effect Level (DNEL) Predicted No Effect Concentration**  No information available.

(PNEC)

8.2. Exposure controls

Personal protective equipment

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

Wear suitable gloves. Hand protection

Skin and body protection Wear suitable protective clothing.

No protective equipment is needed under normal use conditions. If exposure limits are Respiratory protection

exceeded or irritation is experienced, ventilation and evacuation may be required.

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

**Environmental exposure controls** No information available.

# **SECTION 9: Physical and chemical properties**

9.1. Information on basic physical and chemical properties

Physical state

**Appearance** powder or cake, lyophilised

Colour white Odour Odourless.

**Odour threshold** No information available

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None known

 Property
 Values
 Remarks
 • Method

 Melting point / freezing point
 No data available
 None known

Initial boiling point and boiling range1461 °C

Flammability No data available None known Flammability Limit in Air None known

Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

Flash point No data available None known Autoignition temperature No data available None known Decomposition temperature None known

pHNo data availableNone knownpH (as aqueous solution)No data availableNo information availableKinematic viscosityNo data availableNone known

Kinematic viscosity
Dynamic viscosity
No data available
No data available
Soluble in water

Solubility(ies)No data availableNone knownPartition coefficientNo data availableNone knownVapour pressureNo data availableNone knownRelative densityNo data availableNone knownBulk densityNo data available

Liquid Density

No data available
No data available

Relative vapour density

No data available

None known

Particle characteristics

Particle Size No information available Particle Size Distribution No information available

#### 9.2. Other information

## 9.2.1. Information with regards to physical hazard classes

Not applicable

## 9.2.2. Other safety characteristics

No information available

# **SECTION 10: Stability and reactivity**

10.1. Reactivity

**Reactivity** No information available.

10.2. Chemical stability

**Stability** Stable under normal conditions.

**Explosion data** 

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

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

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# **SECTION 11: Toxicological information**

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Hazardous decomposition products None known based on information supplied.

## Information on likely routes of exposure

**Product Information** 

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

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

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

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

Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** No information available.

**Acute toxicity** 

**Numerical measures of toxicity** 

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

**ATEmix (oral)** 3,755.40 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 as well as chronic effects from short and long-term exposure

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

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

**Respiratory or skin sensitisation** 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.

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**Aspiration hazard** 

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

**Endocrine disrupting properties** This product does not contain any known or suspected endocrine disruptors.

No information available.

11.2.2. Other information

Other adverse effects No information available.

# **SECTION 12: Ecological information**

12.1. Toxicity

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

**Unknown aquatic toxicity**Contains 0 % of components with unknown hazards to the aquatic environment.

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

## 12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

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

12.4. Mobility in soil

**Mobility in soil** No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

Chemical name	PBT and vPvB assessment	
Trade secret	The substance is not PBT / vPvB	

## 12.6. Endocrine disrupting properties

**Endocrine disrupting properties** No information available.

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#### 12.7. Other adverse effects

No information available.

# **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Waste from residues/unused

products

Dispose of waste in accordance with environmental legislation. Dispose of in accordance

with local regulations.

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

# **SECTION 14: Transport information**

#### IATA

14.1 UN number or ID numberNot regulated14.2 UN proper shipping nameNot regulated14.3 Transport hazard class(es)Not regulated14.4 Packing groupNot regulated14.5 Environmental hazardsNot applicable

14.6 Special Precautions for Users

Special Provisions None

#### IMDG

14.1UN number or ID numberNot regulated14.2UN proper shipping nameNot regulated14.3Transport hazard class(es)Not regulated14.4Packing groupNot regulated14.5Environmental hazardsNot applicable

14.6 Special Precautions for Users

Special Provisions None

**14.7 Maritime transport in bulk** No information available

according to IMO instruments

#### RID

14.1UN numberNot regulated14.2UN proper shipping nameNot regulated14.3Transport hazard class(es)Not regulated14.4Packing groupNot regulated14.5Environmental hazardsNot applicable

14.6 Special Precautions for Users

Special Provisions None

#### <u>ADR</u>

14.1 UN number or ID number
14.2 UN proper shipping name
14.3 Transport hazard class(es)
14.4 Packing group
14.5 Environmental hazards
Not regulated
Not regulated
Not regulated
Not applicable

14.6 Special Precautions for Users

Special Provisions None

## **SECTION 15: Regulatory information**

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

National regulations

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France
Occupational Illnesses (R-463-3, France)

Chemical name	French RG number	Title
Trade secret	RG 78	-

## Germany

Water hazard class (WGK) slightly hazardous to water (WGK 1)

## **European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

## Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

## **Persistent Organic Pollutants**

Not applicable

## Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

EU - Plant Protection Products (1107/2009/EC)

Chemical name	EU - Plant Protection Products (1107/2009/EC)
Trade secret -	Plant protection agent

Biocidal Products Regulation (EU) No 528/2012 (BPR)

Chemical name	Biocidal Products Regulation (EU) No 528/2012 (BPR)
Trade secret -	Product-type 1: Human hygiene

<u>International Inventories</u> Contact supplier for inventory compliance status

## 15.2. Chemical safety assessment

Chemical Safety Report No information available

## **SECTION 16: Other information**

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

#### Legend

SVHC: Substances of Very High Concern for Authorisation:

## Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value \* Skin designation

Classification procedure					
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used				
Acute oral toxicity	Calculation method				
Acute dermal toxicity	Calculation method				
Acute inhalation toxicity - gas	Calculation method				
Acute inhalation toxicity - vapour	Calculation method				

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Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

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

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)

European Chemicals Agency (ECHA) (ECHA\_API)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

National Institute of Technology and Evaluation (NITE)

Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications

Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme

Organisation for Economic Co-operation and Development Screening Information Data Set

World Health Organization

Revision Note Reformatted and updated existing information

Revision date 09-Aug-2023

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 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** 

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# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 09-Aug-2023 Revision Number 1.2

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name Bio-Plex Detection Antibody Diluent

**Catalogue Number(s)** 10014639, 9703894, 9704417, 10014640

Nanoforms Not applicable

Pure substance/mixture Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

**Recommended use**Laboratory chemicals

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Corporate Headquarters Manufac

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

USA

<u>Manufacturer</u>

Bio-Rad Laboratories, Life Science Group 2000 Alfred Nobel Drive

Hercules, California 94547

USA

<u>Legal Entity / Contact Address</u> Bio-Rad Laboratories Ltd

The Junction Station Road Watford, WD17 1ET

UK

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

For further information, please contact

**Technical Service** 00800 00246 723

Ireland: Techsupport.UK@bio-rad.com India: support.india@bio-rad.com

South Africa: cdg\_techsupport\_eemea@bio-rad.com

1.4. Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC Ireland: 353-19014670

CHEMTREC India: 000-800-100-7141 CHEMTREC South Africa: 0-800-983-611

## **SECTION 2: Hazards identification**

## 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

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## 2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP] Hazard statements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

## 2.3. Other hazards

Contains animal source material. (Cattle).

# **SECTION 3: Composition/information on ingredients**

## 3.1 Substances

Not applicable

## 3.2 Mixtures

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

Chemical name	Weight-%	REACH registration number	`	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Water 7732-18-5	50 - 100	No data available	231-791-2	No data available	-	-	-
Trade secret	5 - 10	No data available	Listed	No data available	1	1	-
Trade secret	0.3 - 0.99	No data available	Listed	No data available	-	1	-
Trade secret	0.1 - 0.299	No data available	Listed	No data available	-	•	-
Trade secret	0.01 - 0.099	No data available	Listed	Acute Tox. 2 (H300) Acute Tox. 1 (H310) (EUH032) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	1	-
Trade secret	0.01 - 0.099	No data available	Not Listed	No data available	-	-	-

## Full text of H- and EUH-phrases: see section 16

# **Acute Toxicity Estimate**

No information available

Chemical name	Oral LD50 mg/kg	Dermal LD50	Inhalation LC50 - 4	Inhalation LC50 - 4	Inhalation LC50 - 4
		mg/kg	hour - dust/mist - mg/L	hour - vapour - mg/L	hour - gas - ppm
Water 7732-18-5	89838.9	No data available	No data available	No data available	No data available
Trade secret	3000	10000	Inhalation LC50 Rat >42 mg/L 1 h (no deaths occurred, aerosol, Source: ECHA_API)	>42	Inhalation LC50 Rat >42 mg/L 1 h (no deaths occurred, aerosol, Source: ECHA_API)
Trade secret	8290	7940	Inhalation LC50 Rat >0.83 mg/L 4 h (no deaths occurred, dust, Source: ECHA_API)	>0.83	Inhalation LC50 Rat >0.83 mg/L 4 h (no deaths occurred, dust, Source: ECHA_API)

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Chemical name	Oral LD50 mg/kg		Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
			0.83		
Trade secret	27	20	Inhalation LC50 Rat 0.054 - 0.52 mg/L 4 h (dust, Source: ECHA_API)	0.054 - 0.52	Inhalation LC50 Rat 0.054 - 0.52 mg/L 4 h (dust, Source: ECHA_API)
Trade secret	37000	No data available	Inhalation LC50 Rat >5.1 mg/L 4 h (no deaths occurred, aerosol, Source: ECHA_API)	>5.1	Inhalation LC50 Rat >5.1 mg/L 4 h (no deaths occurred, aerosol, Source: ECHA_API)

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

# **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

**Inhalation** Remove to fresh air.

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

Consult a doctor.

Skin contact In the case of skin irritation or allergic reactions see a doctor. Wash skin with soap and

water.

**Ingestion** Rinse mouth.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors Treat symptomatically.

# **SECTION 5: Firefighting measures**

5.1. Extinguishing media

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.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the

chemical

No information available.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters

Use personal protection equipment.

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

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## **SECTION 6: Accidental release measures**

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

Personal precautions Ensure adequate ventilation.

6.2. Environmental precautions

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

6.3. 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**Take up mechanically, placing in appropriate containers for disposal.

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

6.4. Reference to other sections

**Reference to other sections** See section 8 for more information. See section 13 for more information.

# **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation.

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

7.2. Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

## **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters

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

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Trade secret	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>
	STEL: 0.3 mg/m <sup>3</sup>	STEL 0.3 mg/m <sup>3</sup>	D*	TWA: 0.1 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>
	*	H*		K*	*
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Trade secret	*	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	S+	TWA: 0.1 mg/m <sup>3</sup>
	STEL: 0.3 mg/m <sup>3</sup>	Ceiling: 0.3 mg/m <sup>3</sup>	H*	TWA: 0.1 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>
	TWA: 0.1 mg/m <sup>3</sup>	D*	STEL: 0.3 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>	iho*
				Α*	

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Chemical name	F	rance	Germany TRGS	Germany DFG	Gı	reece	Hungary														
Trade secret	TWA:	0.1 mg/m <sup>3</sup> : 0.3 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup> Peak: 0.4 mg/m <sup>3</sup>	TWA: TWA: ( STEL:	0.1 ppm 0.3 mg/m <sup>3</sup> : 0.1 ppm 0.3 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup>														
Chemical name	lı	reland	Italy MDLPS	Italy AIDII	Italy AIDII Latvia		Lithuania														
Trade secret		-	-	-	TWA:	5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>														
Trade secret	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup> Sk*		STEL: 0.3 mg/m <sup>3</sup>		STEL: 0.3 mg/m		STEL: 0.3 mg/m <sup>3</sup>		STEL: 0.3 mg/m <sup>3</sup>		STEL: 0.3 mg/m <sup>3</sup>		STEL: 0.3 mg/m <sup>3</sup>		STEL: 0.3 mg/m <sup>3</sup>		TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup> cute*	Ceiling: 0.29 mg/m <sup>3</sup> Ceiling: 0.11 ppm	STEL:	0.1 mg/m <sup>3</sup> 0.3 mg/m <sup>3</sup> \da*	O* TWA: 0.1 mg/m³ STEL: 0.3 mg/m³
Chemical name	Lux	embourg	Malta	Netherlands	No	orway	Poland														
Trade secret	STEL:	Peau* : 0.3 mg/m³ 0.1 mg/m³	skin* STEL: 0.3 mg/m³ TWA: 0.1 mg/m³	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup> H*		0.1 mg/m <sup>3</sup> 0.3 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup> skóra*														
Chemical name		ortugal	Romania	Slovakia	Slo	ovenia	Spain														
Trade secret	TWA: 0.1 mg/m³ STEL: 0.3 mg/m³ Ceiling: 0.29 mg/m³ Ceiling: 0.11 ppm Cutânea*		TWA: 0.1 mg/m³ STEL: 0.3 mg/m³ P*	TWA: 0.1 mg/m³ K* Ceiling: 0.3 mg/m³		0.1 mg/m <sup>3</sup> 0.3 mg/m <sup>3</sup> K*	TWA: 0.1 mg/m³ STEL: 0.3 mg/m³ vía dérmica*														
Chemical name		Sv	veden	Switzerland	ind		ted Kingdom														
Trade secret			0.1 mg/m³ GV: 0.3 mg/m³	TWA: 0.2 mg/m STEL: 0.4 mg/m	<sup>3</sup> TWA: 0.1 mg/m <sup>3</sup>		A: 0.1 mg/m <sup>3</sup> EL: 0.3 mg/m <sup>3</sup>														

## **Biological occupational exposure limits**

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

Derived No Effect Level (DNEL) Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Personal protective equipment

**Eye/face protection** No special protective equipment required.

**Skin and body protection**No special protective equipment required.

exceeded or irritation is experienced, ventilation and evacuation may be required.

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

**Environmental exposure controls** No information available.

# **SECTION 9: Physical and chemical properties**

9.1. Information on basic physical and chemical properties

Physical state Liquid

Appearance aqueous solution colourless
Odour Odourless.

Odour threshold No information available

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Revision date 09-Aug-2023

None known

None known

None known

None known

None known

None known

Values Remarks • Method Property

No data available Melting point / freezing point None known

Initial boiling point and boiling range100 °C

Flammability No data available None known Flammability Limit in Air None known

Upper flammability or explosive No data available

Lower flammability or explosive No data available

limits

Flash point No data available None known **Autoignition temperature** No data available None known None known

**Decomposition temperature** 

7 4

No data available pH (as aqueous solution) No information available None known

No data available

No data available Kinematic viscosity Dynamic viscosity No data available Water solubility Miscible in water

Solubility(ies) No data available

**Partition coefficient** No data available Vapour pressure No data available Relative density No data available **Bulk density** No data available **Liquid Density** No data available

Relative vapour density

Particle characteristics

No information available **Particle Size** No information available **Particle Size Distribution** 

9.2. Other information

9.2.1. Information with regards to physical hazard classes

Not applicable

9.2.2. Other safety characteristics

No information available

## **SECTION 10: Stability and reactivity**

10.1. Reactivity

No information available. Reactivity

10.2. Chemical stability

Stability Stable under normal conditions.

**Explosion data** 

Sensitivity to mechanical impact None. Sensitivity to static discharge

10.3. Possibility of hazardous reactions

None under normal processing. Possibility of hazardous reactions

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

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Hazardous decomposition products None known based on information supplied.

# **SECTION 11: Toxicological information**

## 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

## Information on likely routes of exposure

**Product Information** 

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

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

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

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

Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** No information available.

Acute toxicity

**Numerical measures of toxicity** 

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Water	> 90 mL/kg (Rat)	-	-
Trade secret	= 3 g/kg (Rat)	> 10000 mg/kg ( Rabbit )	> 42 mg/L (Rat)1 h
Trade secret	= 8290 mg/kg (Rat)	> 7940 mg/kg(Rabbit)	> 0.83 mg/L (Rat)4 h
Trade secret	= 27 mg/kg (Rat)	= 20 mg/kg(Rabbit)	0.054 - 0.52 mg/L (Rat) 4 h
Trade secret	= 37000 mg/kg (Rat)	-	> 5.1 mg/L (Rat)4 h

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

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

Serious eye damage/eye irritation No information available.

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

Germ cell mutagenicity No information available.

**Carcinogenicity** No information available.

**Reproductive toxicity** No information available.

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STOT - single exposure No information available.

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

**Aspiration hazard** No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

**Endocrine disrupting properties** This product does not contain any known or suspected endocrine disruptors.

11.2.2. Other information

Other adverse effects No information available.

# **SECTION 12: Ecological information**

12.1. Toxicity

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

**Unknown aquatic toxicity**Contains 0.095 % of components with unknown hazards to the aquatic environment.

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

## 12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

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

12.4. Mobility in soil

**Mobility in soil** No information available.

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## 12.5. Results of PBT and vPvB assessment

**PBT and vPvB assessment**No information available.

Chemical name	PBT and vPvB assessment
Trade secret	The substance is not PBT / vPvB
Trade secret	PBT assessment does not apply
Trade secret	The substance is not PBT / vPvB
Trade secret	The substance is not PBT / vPvB

## 12.6. Endocrine disrupting properties

**Endocrine disrupting properties** No information available.

#### 12.7. Other adverse effects

No information available.

# **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Waste from residues/unused

products

Dispose of waste in accordance with environmental legislation. Dispose of in accordance

with local regulations.

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

# **SECTION 14: Transport information**

#### IATA

Not regulated
Not regulated
Not regulated
Not regulated
Not applicable

14.6 Special Precautions for Users

Special Provisions None

## **IMDG**

14.1	UN number or ID number	Not regulated
14.2	<b>UN proper shipping name</b>	Not regulated
14.3	Transport hazard class(es)	Not regulated
14.4	Packing group	Not regulated
	Environmental hazards	Not applicable

14.6 Special Precautions for Users

Special Provisions None

**14.7** Maritime transport in bulk No information available

according to IMO instruments

## <u>RID</u>

14.1 UN number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable

14.6 Special Precautions for Users

Special Provisions None

<u>ADR</u>

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## **Bio-Plex Detection Antibody Diluent**

Revision date 09-Aug-2023

FLL - Plant Protection Products (1107/2009/FC)

14.1 UN number or ID numberNot regulated14.2 UN proper shipping nameNot regulated14.3 Transport hazard class(es)Not regulated14.4 Packing groupNot regulated14.5 Environmental hazardsNot applicable

14.6 Special Precautions for Users

Special Provisions None

# **SECTION 15: Regulatory information**

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

#### **National regulations**

Chemical name	French RG number	Title
Trade secret	RG 78	-

#### Germany

Water hazard class (WGK) non-hazardous to water (nwg)

## **European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

#### Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

## **Persistent Organic Pollutants**

Not applicable

## Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Chemical name

Not applicable

Chemical name	20 Tidil(110(cction1110ddcts (1107/2003/20)		
Trade secret -	Plant protection agent		
Chemical name	Biocidal Products Regulation (EU) No 528/2012 (BPR)		
Trade secret -	Product-type 1: Human hygiene		

<u>International Inventories</u> Contact supplier for inventory compliance status

## 15.2. Chemical safety assessment

Chemical Safety Report No information available

## **SECTION 16: Other information**

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

#### Legend

SVHC: Substances of Very High Concern for Authorisation:

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

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value \* Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

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

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)

European Chemicals Agency (ECHA) (ECHA\_API)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

National Institute of Technology and Evaluation (NITE)

Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications

Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme

Organisation for Economic Co-operation and Development Screening Information Data Set

World Health Organization

Revision Note Reformatted and updated existing information

Revision date 09-Aug-2023

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 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** 

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# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 17-May-2023 Revision Number 1.3

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

**Product Name** Bio-Plex Sample Diluent

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

**Nanoforms** Not applicable

Pure substance/mixture Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use Laboratory chemicals

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

**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 Ltd

The Junction Station Road Watford, WD17 1ET

UK

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

For further information, please contact

00800 00246 723 **Technical Service** 

> Ireland: Techsupport.UK@bio-rad.com India: support.india@bio-rad.com

South Africa: cdg\_techsupport\_eemea@bio-rad.com

1.4. Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC Ireland: 353-19014670

> CHEMTREC India: 000-800-100-7141 CHEMTREC South Africa: 0-800-983-611

## **SECTION 2: Hazards identification**

## 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

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## 2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

#### **Hazard statements**

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

## 2.3. Other hazards

Contains animal source material. (Cattle).

# **SECTION 3: Composition/information on ingredients**

## 3.1 Substances

Not applicable

## 3.2 Mixtures

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

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No.	concentration	M-Factor	M-Factor (long-term)
				1272/2008 [CLP]	limit (SCL)		
Water 7732-18-5	50 - 100	No data available	231-791-2	No data available	1	-	-
Trade secret	0.3 - 0.99	No data available	Listed	No data available	-	-	-
HBR 1 Blocker NO-CAS-18	0.1 - 0.299	No data available	-	No data available	1	-	-
Trade secret	0.1 - 0.299	No data available	Not Listed	Eye Irrit. 2 (H319) STOT SE 3 (H335) Aquatic Chronic 3 (H412)	-	-	-
Trade secret	0.1 - 0.299	No data available	Not Listed	No data available	1	-	-
Trade secret	0.1 - 0.299	No data available	Not Listed	No data available	-	-	-
Trade secret	0.1 - 0.299	No data available	Listed	No data available	1	-	-
Trade secret	0.01 - 0.099	No data available	Listed	Acute Tox. 2 (H300) Acute Tox. 1 (H310) (EUH032) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	-	-
Trade secret	0.01 - 0.099	No data available	Not Listed	No data available	-	-	-

## Full text of H- and EUH-phrases: see section 16

## **Acute Toxicity Estimate**

No information available

Chemical name	Oral LD50 mg/kg	Dermal LD50	Inhalation LC50 - 4	Inhalation LC50 - 4	Inhalation LC50 - 4
		mg/kg	hour - dust/mist - mg/L	hour - vapour - mg/L	hour - gas - ppm
Water	89838.9	No data available	No data available	No data available	No data available
7732-18-5					
Trade secret	8290	7940	Inhalation LC50 Rat	>0.83	Inhalation LC50 Rat

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Chemical name	Oral LD50 mg/kg	Dermal LD50	Inhalation LC50 - 4	Inhalation LC50 - 4	Inhalation LC50 - 4
		mg/kg	hour - dust/mist - mg/L	hour - vapour - mg/L	hour - gas - ppm
			>0.83 mg/L 4 h (no deaths occurred, dust, Source: ECHA_API) 0.83		>0.83 mg/L 4 h (no deaths occurred, dust, Source: ECHA_API)
Trade secret	22000	20000	No data available	No data available	No data available
Trade secret	5700 16000	No data available	Inhalation LC50 Rat 320 mg/m³ 4 h (Source: NLM_CIP)	320	Inhalation LC50 Rat 320 mg/m³ 4 h (Source: NLM_CIP)
Trade secret	27	20	Inhalation LC50 Rat 0.054 - 0.52 mg/L 4 h (dust, Source: ECHA_API)	0.054 - 0.52	Inhalation LC50 Rat 0.054 - 0.52 mg/L 4 h (dust, Source: ECHA_API)

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

## **SECTION 4: First aid measures**

## 4.1. Description of first aid measures

**Inhalation** Remove to fresh air.

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

Consult a doctor.

**Skin contact** In the case of skin irritation or allergic reactions see a doctor. Wash skin with soap and

water.

**Ingestion** Rinse mouth.

4.2. Most important symptoms and effects, both acute and delayed

**Symptoms** No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors Treat symptomatically.

# **SECTION 5: Firefighting measures**

5.1. Extinguishing media

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.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the No in

chemical

No information available.

5.3. Advice for firefighters

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Special protective equipment and precautions for fire-fighters

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

## **SECTION 6: Accidental release measures**

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

**Personal precautions** Ensure adequate ventilation.

6.2. Environmental precautions

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

6.3. 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**Take up mechanically, placing in appropriate containers for disposal.

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

6.4. Reference to other sections

**Reference to other sections** See section 8 for more information. See section 13 for more information.

# **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation.

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

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

## **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational

exposure limits established by the region specific regulatory bodies.

(	Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
	Trade secret	-	TWA: 1000 mg/m <sup>3</sup>	-	-	-
			STEL 4000 mg/m <sup>3</sup>			
	Trade secret	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>
		STEL: 0.3 mg/m <sup>3</sup>		D*	TWA: 0.1 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>
		*	H*		K*	*

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Chemical name	Cyprus	Czech Republic	Denmark	Es	stonia	Finland
Trade secret	-	-	TWA: 1000 mg/m³ STEL: 2000 mg/m³ average molecular weight of 200-600		1	-
Trade secret	STEL: 0.3 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m³ Ceiling: 0.3 mg/m³ D*	TWA: 0.1 mg/m³ H* STEL: 0.3 mg/m³	TWA: (	S+ 0.1 mg/m <sup>3</sup> 0.3 mg/m <sup>3</sup> A*	TWA: 0.1 mg/m³ STEL: 0.3 mg/m³ iho*
Chemical name	France	Germany TRGS	Germany DFG	Gr	reece	Hungary
Trade secret	-	TWA: 200 mg/m <sup>3</sup>	TWA: 250 mg/m <sup>3</sup> Peak: 500 mg/m <sup>3</sup>		-	-
Trade secret	TWA: 0.1 mg/m³ STEL: 0.3 mg/m³ *	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup> Peak: 0.4 mg/m <sup>3</sup>	TWA: ( STEL:	0.1 ppm 0.3 mg/m <sup>3</sup> : 0.1 ppm 0.3 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup>
Chemical name	Ireland	Italy MDLPS	Italy AIDII	La	atvia	Lithuania
Trade secret	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup> Sk*	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup> cute*	Ceiling: 0.29 mg/m <sup>3</sup> Ceiling: 0.11 ppm	STEL:	0.1 mg/m <sup>3</sup> 0.3 mg/m <sup>3</sup> \da*	O* TWA: 0.1 mg/m³ STEL: 0.3 mg/m³
Chemical name	Luxembourg	Malta	Netherlands	No	orway	Poland
Trade secret	Peau* STEL: 0.3 mg/m³ TWA: 0.1 mg/m³	skin* STEL: 0.3 mg/m³ TWA: 0.1 mg/m³	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup> H*		0.1 mg/m <sup>3</sup> 0.3 mg/m <sup>3</sup>	STEL: 0.3 mg/m³ TWA: 0.1 mg/m³ skóra*
Chemical name	Portugal	Romania	Slovakia	Slo	venia	Spain
Trade secret	-	-	TWA: 1000 mg/m <sup>3</sup>		000 mg/m <sup>3</sup> 000 mg/m <sup>3</sup>	-
Trade secret	TWA: 0.1 mg/m³ STEL: 0.3 mg/m³ Ceiling: 0.29 mg/m³ Ceiling: 0.11 ppm Cutânea*	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup> P*	TWA: 0.1 mg/m³ K* Ceiling: 0.3 mg/m³	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup> K*		TWA: 0.1 mg/m³ STEL: 0.3 mg/m³ vía dérmica*
Chemical name	S	weden	Switzerland		United Kingdom	
Trade secret		-	TWA: 500 mg/m	3 _		-
Trade secret		0.1 mg/m <sup>3</sup> (GV: 0.3 mg/m <sup>3</sup>	TWA: 0.2 mg/m STEL: 0.4 mg/m			:L: 0.3 mg/m <sup>3</sup>

## **Biological occupational exposure limits**

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

Derived No Effect Level (DNEL) Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Personal protective equipment

**Eye/face protection** No special protective equipment required.

**Skin and body protection**No special protective equipment required.

exceeded or irritation is experienced, ventilation and evacuation may be required.

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

**Environmental exposure controls** No information available.

## **SECTION 9: Physical and chemical properties**

9.1. Information on basic physical and chemical properties

Physical state Liquid

Appearance aqueous solution colourless
Odour Odourless.

Odour threshold No information available

Property Values Remarks • Method

Melting point / freezing point 0 °C

Initial boiling point and boiling range100 °C

Flammability No data available None known Flammability Limit in Air None known

Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

Flash pointNo data availableNone knownAutoignition temperatureNo data availableNone knownDecomposition temperatureNone known

....

**pH** 7.4

pH (as aqueous solution) No data available No information available

Kinematic viscosityNo data availableNone knownDynamic viscosityNo data availableNone known

Water solubilityMiscible in waterSolubility(ies)No data availableNone knownPartition coefficientNo data availableNone knownVapour pressureNo data availableNone known

Relative density

Bulk density

Liquid Density

No data available

No data available

No data available

Relative vapour density No data available None known

Particle characteristics

Particle Size No information available Particle Size Distribution No information available

## 9.2. Other information

## 9.2.1. Information with regards to physical hazard classes

Not applicable

#### 9.2.2. Other safety characteristics

No information available

## **SECTION 10: Stability and reactivity**

None known

10.1. Reactivity

**Reactivity** No information available.

10.2. Chemical stability

**Stability** Stable under normal conditions.

**Explosion data** 

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

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## 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Avoid contact with metals. This product contains Sodium azide. Sodium azide can react with

Copper, Brass, Lead, and solder in piping systems to form explosive compounds and toxic

gases.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Incompatible materials Metals.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

# **SECTION 11: Toxicological information**

## 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

## Information on likely routes of exposure

#### **Product Information**

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

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

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

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

Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** No information available.

Acute toxicity

**Numerical measures of toxicity** 

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

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

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

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

**Respiratory or skin sensitisation** 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.

11.2. Information on other hazards

## 11.2.1. Endocrine disrupting properties

**Endocrine disrupting properties** This product does not contain any known or suspected endocrine disruptors.

11.2.2. Other information

Other adverse effects No information available.

# **SECTION 12: Ecological information**

12.1. Toxicity

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

**Unknown aquatic toxicity**Contains 0.095 % of components with unknown hazards to the aquatic environment.

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

## 12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

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

Chemical name	Partition coefficient
Trade secret	-0.698

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## 12.4. Mobility in soil

Mobility in soil No information available.

## 12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

Chemical name	PBT and vPvB assessment
Trade secret	PBT assessment does not apply
Trade secret	The substance is not PBT / vPvB
Trade secret	The substance is not PBT / vPvB
Trade secret	The substance is not PBT / vPvB

## 12.6. Endocrine disrupting properties

**Endocrine disrupting properties** No information available.

## 12.7. Other adverse effects

No information available.

# **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Waste from residues/unused

products

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. Flush pipes with water frequently if discarding solutions containing Sodium azide into metal piping systems.

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

# **SECTION 14: Transport information**

## <u>IATA</u>

Not regulated
Not regulated
Not regulated
Not regulated
Not applicable

14.6 Special Precautions for Users

Special Provisions None

## **IMDG**

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable

14.6 Special Precautions for Users

Special Provisions None

14.7 Maritime transport in bulk according to IMO instruments

No information available

#### **RID**

IXID	
14.1 UN number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated

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14.5 Environmental hazards

Not applicable

14.6 Special Precautions for Users

**Special Provisions** None

ADR

Not regulated 14.1 UN number or ID number Not regulated 14.2 UN proper shipping name Not regulated 14.3 Transport hazard class(es) 14.4 Packing group Not regulated Not applicable 14.5 Environmental hazards

14.6 Special Precautions for Users

**Special Provisions** None

# **SECTION 15: Regulatory information**

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

## **National regulations**

Germany

Water hazard class (WGK) non-hazardous to water (nwg)

#### **European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

#### Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

#### **Persistent Organic Pollutants**

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

**International Inventories** Contact supplier for inventory compliance status

15.2. Chemical safety assessment

No information available **Chemical Safety Report** 

## **SECTION 16: Other information**

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

Legend

SVHC: Substances of Very High Concern for Authorisation:

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

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TWA (time-weighted average) STEL (Short Term Exposure Limit) **TWA STEL** 

Ceiling Maximum limit value Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

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

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)

European Chemicals Agency (ECHA) (ECHA\_API)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

National Institute of Technology and Evaluation (NITE)

Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications

Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme

Organisation for Economic Co-operation and Development Screening Information Data Set

World Health Organization

Reformatted and updated existing information **Revision Note** 

**Revision date** 17-May-2023

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 **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** 

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# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 17-May-2023 Revision Number 1.3

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name Bio-Plex Standard Diluent

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

Nanoforms Not applicable

Pure substance/mixture Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use Laboratory chemicals

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Corporate Headquarters Manufacturer

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

USA

<u>llanufacturer</u>

Bio-Rad Laboratories, Life Science Group

2000 Alfred Nobel Drive Hercules, California 94547

USA

Legal Entity / Contact Address
Bio-Rad Laboratories Ltd

The Junction Station Road Watford, WD17 1ET

UK

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

For further information, please contact

**Technical Service** 00800 00246 723

Ireland: Techsupport.UK@bio-rad.com India: support.india@bio-rad.com

South Africa: cdg\_techsupport\_eemea@bio-rad.com

1.4. Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC Ireland: 353-19014670

CHEMTREC India: 000-800-100-7141 CHEMTREC South Africa: 0-800-983-611

# **SECTION 2: Hazards identification**

# 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

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# 2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

#### **Hazard statements**

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

# 2.3. Other hazards

Contains animal source material. (Cattle).

# **SECTION 3: Composition/information on ingredients**

### 3.1 Substances

Not applicable

# 3.2 Mixtures

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

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Water 7732-18-5	50 - 100	No data available	231-791-2	No data available	-	-	-
Trade secret	20 - 35	No data available	Not Listed	No data available	-	-	-
Trade secret	0.3 - 0.99	No data available	Listed	No data available	-	-	-
HBR 1 Blocker NO-CAS-18	0.1 - 0.299	No data available	-	No data available	-	-	-
Trade secret	0.01 - 0.099	No data available	Not Listed	No data available	-	-	-
Trade secret	0.01 - 0.099	No data available	Not Listed	No data available	-	-	-
Trade secret	0.01 - 0.099	No data available	Listed	No data available	-	-	-
Trade secret	0.01 - 0.099	No data available	Listed	Acute Tox. 2 (H300) Acute Tox. 1 (H310) (EUH032) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	_	-

# Full text of H- and EUH-phrases: see section 16

# **Acute Toxicity Estimate**

No information available

Chemical name	Oral LD50 mg/kg	Dermal LD50	Inhalation LC50 - 4	Inhalation LC50 - 4	Inhalation LC50 - 4
		mg/kg	hour - dust/mist - mg/L	hour - vapour - mg/L	hour - gas - ppm
Water 7732-18-5	89838.9	No data available	No data available	No data available	No data available
Trade secret	8290	7940	Inhalation LC50 Rat >0.83 mg/L 4 h (no deaths occurred, dust, Source: ECHA_API) 0.83	>0.83	Inhalation LC50 Rat >0.83 mg/L 4 h (no deaths occurred, dust, Source: ECHA_API)

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Chemical name	Oral LD50 mg/kg		Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Trade secret	22000	20000	No data available	No data available	No data available
Trade secret	5700 16000	No data available	Inhalation LC50 Rat 320 mg/m <sup>3</sup> 4 h (Source: NLM_CIP)	320	Inhalation LC50 Rat 320 mg/m³ 4 h (Source: NLM_CIP)
Trade secret	27	20	Inhalation LC50 Rat 0.054 - 0.52 mg/L 4 h (dust, Source: ECHA_API)	0.054 - 0.52	Inhalation LC50 Rat 0.054 - 0.52 mg/L 4 h (dust, Source: ECHA_API)

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

# **SECTION 4: First aid measures**

### 4.1. Description of first aid measures

**Inhalation** Remove to fresh air.

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

Consult a doctor.

Skin contact In the case of skin irritation or allergic reactions see a doctor. Wash skin with soap and

water.

**Ingestion** Rinse mouth.

4.2. Most important symptoms and effects, both acute and delayed

**Symptoms** No information available.

4.3. Indication of any immediate medical attention and special treatment needed

**Note to doctors** Treat symptomatically.

# **SECTION 5: Firefighting measures**

5.1. Extinguishing media

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.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the

chemical

No information available.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

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# **SECTION 6: Accidental release measures**

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

**Personal precautions** Ensure adequate ventilation.

**For emergency responders** Use personal protection recommended in Section 8.

6.2. Environmental precautions

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

6.3. 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**Take up mechanically, placing in appropriate containers for disposal.

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

6.4. Reference to other sections

**Reference to other sections**See section 8 for more information. See section 13 for more information.

# **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation.

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

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

# **SECTION 8: Exposure controls/personal protection**

# 8.1. Control parameters

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

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Trade secret	-	TWA: 1000 mg/m <sup>3</sup>	-	-	-
		STEL 4000 mg/m <sup>3</sup>			
Trade secret	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>
	STEL: 0.3 mg/m <sup>3</sup>	STEL 0.3 mg/m <sup>3</sup>	D*	TWA: 0.1 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>
	*	H*		K*	*
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Trade secret	-	-	TWA: 1000 mg/m <sup>3</sup>	-	-
			STEL: 2000 mg/m <sup>3</sup>		
			average molecular		
			weight of 200-600		

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Trade secret	*	T\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	TMA: 0.4 == =/==3	S-I		T\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Trade secret	CTFL 0.2 mg/m3	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup> H*	54 TWA: 0.1		TWA: 0.1 mg/m <sup>3</sup>
	STEL: 0.3 mg/m <sup>3</sup>	Ceiling: 0.3 mg/m <sup>3</sup>				STEL: 0.3 mg/m <sup>3</sup>
	TWA: 0.1 mg/m <sup>3</sup>	D"	STEL: 0.3 mg/m <sup>3</sup>	STEL: 0.3	•	iho*
Chaminal manna	Гионал	Common TDCC	Commonwy DEC	A <sup>*</sup>		Llunganu
Chemical name	France	Germany TRGS	Germany DFG	Gree	ece	Hungary
Trade secret	-	TWA: 200 mg/m <sup>3</sup>	TWA: 250 mg/m <sup>3</sup>	-		-
			Peak: 500 mg/m <sup>3</sup>			
Trade secret	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.		TWA: 0.1 mg/m <sup>3</sup>
	STEL: 0.3 mg/m <sup>3</sup>		Peak: 0.4 mg/m <sup>3</sup>	TWA: 0.3		STEL: 0.3 mg/m <sup>3</sup>
	*			STEL: 0		
				STEL: 0.3	3 mg/m <sup>3</sup>	
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latv	∕ia	Lithuania
Trade secret	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	Ceiling: 0.29 mg/m <sup>3</sup>	TWA: 0.1	mg/m³	O*
	STEL: 0.3 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>	Ceiling: 0.11 ppm	STEL: 0.3	3 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>
	Sk*	cute*		Ada	a*	STEL: 0.3 mg/m <sup>3</sup>
Chemical name	Luxembourg	Malta	Netherlands	Norv	vay	Poland
Trade secret	Peau*	skin*	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1	mg/m³	STEL: 0.3 mg/m <sup>3</sup>
	STEL: 0.3 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>	STEL: 0.3	3 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>
	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	H*		-	skóra*
Chemical name	Portugal	Romania	Slovakia	Slove	enia	Spain
Trade secret	-	-	TWA: 1000 mg/m <sup>3</sup>	TWA: 100	0 mg/m <sup>3</sup>	-
				STEL: 800	00 mg/m <sup>3</sup>	
Trade secret	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1	mg/m³	TWA: 0.1 mg/m <sup>3</sup>
	STEL: 0.3 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>	K*	STEL: 0.3	3 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>
	Ceiling: 0.29 mg/m <sup>3</sup>	P*	Ceiling: 0.3 mg/m <sup>3</sup>	K'	+	vía dérmica*
	Ceiling: 0.11 ppm					
	Cutânea*					
Chemical name	Sı	weden	Switzerland		United Kingdom	
Trade secret		-	TWA: 500 mg/m			
Trade secret	NGV:	0.1 mg/m <sup>3</sup>	TWA: 0.2 mg/m	<sup>3</sup> TWA: 0.1 mg/m <sup>3</sup>		
	Bindande k	(GV: 0.3 mg/m <sup>3</sup>	STEL: 0.4 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup>		:L: 0.3 mg/m <sup>3</sup>	
		-	_			Sk*

#### **Biological occupational exposure limits**

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

Derived No Effect Level (DNEL)
Predicted No Effect Concentration
(PNEC)

No information available.

8.2. Exposure controls

Personal protective equipment

**Eye/face protection** No special protective equipment required.

**Skin and body protection**No special protective equipment required.

exceeded or irritation is experienced, ventilation and evacuation may be required.

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

Environmental exposure controls No information available.

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# **SECTION 9: Physical and chemical properties**

9.1. Information on basic physical and chemical properties

Physical state Liquid

Appearance aqueous solution colourless
Odour Odourless.

Odour threshold No information available

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

Melting point / freezing point No data available None known

Initial boiling point and boiling range 100 °C

Flammability No data available None known Flammability Limit in Air None known

Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

Flash pointNo data availableNone knownAutoignition temperatureNo data availableNone knownDecomposition temperatureNone known

**oH** 7.4

pH (as aqueous solution) No data available No information available

Kinematic viscosityNo data availableNone knownDynamic viscosityNo data availableNone known

Water solubilityMiscible in waterSolubility(ies)No data availableNone knownPartition coefficientNo data availableNone knownVapour pressureNo data availableNone known

Relative density

Bulk density

Liquid Density

No data available

No data available

Relative vapour density No data available None known

Particle characteristics

Particle SizeNo information availableParticle Size DistributionNo information available

#### 9.2. Other information

# 9.2.1. Information with regards to physical hazard classes

Not applicable

# 9.2.2. Other safety characteristics

No information available

# **SECTION 10: Stability and reactivity**

10.1. Reactivity

**Reactivity** No information available.

10.2. Chemical stability

**Stability** Stable under normal conditions.

**Explosion data** 

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

### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Avoid contact with metals. This product contains Sodium azide. Sodium azide can react with

Copper, Brass, Lead, and solder in piping systems to form explosive compounds and toxic

None known

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gases.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials Metals.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

# **SECTION 11: Toxicological information**

# 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

### Information on likely routes of exposure

#### **Product Information**

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

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

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

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

Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** No information available.

Acute toxicity

**Numerical measures of toxicity** 

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

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

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

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitisation No information available.

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**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.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

**Endocrine disrupting properties** This product does not contain any known or suspected endocrine disruptors.

11.2.2. Other information

Other adverse effects No information available.

# **SECTION 12: Ecological information**

12.1. Toxicity

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

**Unknown aquatic toxicity**Contains 0.018 % of components with unknown hazards to the aquatic environment.

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

### 12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

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

Chemical name	Partition coefficient
Trade secret	-0.698

### 12.4. Mobility in soil

Mobility in soil No information available.

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# 12.5. Results of PBT and vPvB assessment

**PBT and vPvB assessment**No information available.

Chemical name	PBT and vPvB assessment
Trade secret	PBT assessment does not apply
Trade secret	The substance is not PBT / vPvB
Trade secret	The substance is not PBT / vPvB

#### 12.6. Endocrine disrupting properties

**Endocrine disrupting properties** No information available.

#### 12.7. Other adverse effects

No information available.

# **SECTION 13: Disposal considerations**

### 13.1. Waste treatment methods

Waste from residues/unused products

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. Flush pipes with water frequently if discarding solutions containing Sodium azide into metal piping systems.

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

# **SECTION 14: Transport information**

### IATA

14.1 UN number or ID number
14.2 UN proper shipping name
14.3 Transport hazard class(es)
14.4 Packing group
14.5 Environmental hazards

Not regulated
Not regulated
Not regulated
Not applicable

14.6 Special Precautions for Users

Special Provisions None

#### IMDG

14.1 UN number or ID numberNot regulated14.2 UN proper shipping nameNot regulated14.3 Transport hazard class(es)Not regulated14.4 Packing groupNot regulated14.5 Environmental hazardsNot applicable

14.6 Special Precautions for Users

Special Provisions None

14.7 Maritime transport in bulk No information available according to IMO instruments

# <u>RID</u>

14.1UN numberNot regulated14.2UN proper shipping nameNot regulated14.3Transport hazard class(es)Not regulated14.4Packing groupNot regulated14.5Environmental hazardsNot applicable

14.6 Special Precautions for Users

Special Provisions None

ADR

14.1 UN number or ID number Not regulated

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14.2UN proper shipping nameNot regulated14.3Transport hazard class(es)Not regulated14.4Packing groupNot regulated14.5Environmental hazardsNot applicable

14.6 Special Precautions for Users

Special Provisions None

# **SECTION 15: Regulatory information**

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

#### **National regulations**

Germany

Water hazard class (WGK) non-hazardous to water (nwg)

#### **European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

### Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

#### **Persistent Organic Pollutants**

Not applicable

# Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

<u>International Inventories</u> Contact supplier for inventory compliance status

15.2. Chemical safety assessment

Chemical Safety Report No information available

# **SECTION 16: Other information**

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

Legend

SVHC: Substances of Very High Concern for Authorisation:

# Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value \* Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method

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Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

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

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)

European Chemicals Agency (ECHA) (ECHA\_API)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

National Institute of Technology and Evaluation (NITE)

Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications

Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme

Organisation for Economic Co-operation and Development Screening Information Data Set

World Health Organization

Revision Note Reformatted and updated existing information

Revision date 17-May-2023

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 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** 

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# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 17-May-2023 Revision Number 1.3

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

**Product Name** Streptavidin-PE

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

**Nanoforms** Not applicable

Pure substance/mixture Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use Laboratory chemicals

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

**Corporate Headquarters** Manufacturer

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

USA

Bio-Rad Laboratories, Life Science Group

2000 Alfred Nobel Drive Hercules, California 94547

USA

**Legal Entity / Contact Address** Bio-Rad Laboratories Ltd

The Junction Station Road Watford, WD17 1ET

UK

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

For further information, please contact

00800 00246 723 **Technical Service** 

> Ireland: Techsupport.UK@bio-rad.com India: support.india@bio-rad.com

South Africa: cdg\_techsupport\_eemea@bio-rad.com

1.4. Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC Ireland: 353-19014670

CHEMTREC India: 000-800-100-7141 CHEMTREC South Africa: 0-800-983-611

# **SECTION 2: Hazards identification**

# 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

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# 2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

#### **Hazard statements**

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

# 2.3. Other hazards

# **SECTION 3: Composition/information on ingredients**

# 3.1 Substances

Not applicable

# 3.2 Mixtures

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

Chemical name	Weight-%	REACH registration number	,	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Water 7732-18-5	50 - 100	No data available	231-791-2	No data available	-	-	-
Trade secret	0.3 - 0.99	No data available	Listed	No data available	-	-	-
Trade secret	0.1 - 0.299	No data available	Listed	No data available	1	-	-
Trade secret	0.1 - 0.299	No data available	Listed	No data available	-	-	-
Trade secret	0.01 - 0.099	No data available	Listed	Acute Tox. 2 (H300) Acute Tox. 1 (H310) (EUH032) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	-	-
Avidin 9013-20-1	0.01 - 0.099	No data available	-	No data available	-	-	-

# Full text of H- and EUH-phrases: see section 16

# **Acute Toxicity Estimate**

No information available

1	Chemical name	Oral LD50 mg/kg		Inhalation LC50 - 4	Inhalation LC50 - 4	Inhalation LC50 - 4
ı			mg/kg	hour - dust/mist - mg/L	hour - vapour - mg/L	hour - gas - ppm
	Water 7732-18-5	89838.9	No data available	No data available	No data available	No data available
	Trade secret	3000	10000	Inhalation LC50 Rat >42 mg/L 1 h (no deaths occurred, aerosol, Source: ECHA_API)	>42	Inhalation LC50 Rat >42 mg/L 1 h (no deaths occurred, aerosol, Source: ECHA_API)
	Trade secret	8290	7940	Inhalation LC50 Rat >0.83 mg/L 4 h (no deaths occurred, dust, Source: ECHA_API) 0.83	>0.83	Inhalation LC50 Rat >0.83 mg/L 4 h (no deaths occurred, dust, Source: ECHA_API)

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Chemical name	Oral LD50 mg/kg	Dermal LD50	Inhalation LC50 - 4	Inhalation LC50 - 4	Inhalation LC50 - 4
		mg/kg	hour - dust/mist - mg/L	hour - vapour - mg/L	hour - gas - ppm
Trade secret	27	20	Inhalation LC50 Rat	0.054 - 0.52	Inhalation LC50 Rat
			0.054 - 0.52 mg/L 4 h		0.054 - 0.52 mg/L 4 h
			(dust, Source:		(dust, Source:
			ECHA_API)		ECHA_API)

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

# **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

**Inhalation** Remove to fresh air.

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

Consult a doctor.

**Skin contact** In the case of skin irritation or allergic reactions see a doctor. Wash skin with soap and

water.

**Ingestion** Rinse mouth.

4.2. Most important symptoms and effects, both acute and delayed

**Symptoms** No information available.

4.3. Indication of any immediate medical attention and special treatment needed

**Note to doctors** Treat symptomatically.

# **SECTION 5: Firefighting measures**

5.1. 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.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the

chemical

No information available.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

# **SECTION 6: Accidental release measures**

6.1. Personal precautions, protective equipment and emergency procedures

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**Personal precautions** Ensure adequate ventilation.

6.2. Environmental precautions

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

6.3. 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**Take up mechanically, placing in appropriate containers for disposal.

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

6.4. Reference to other sections

**Reference to other sections** See section 8 for more information. See section 13 for more information.

# **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

**Advice on safe handling** Ensure adequate ventilation.

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

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

# **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters

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

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Trade secret	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>
	STEL: 0.3 mg/m <sup>3</sup>	STEL 0.3 mg/m <sup>3</sup>	D*	TWA: 0.1 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>
	*	H*		K*	*
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Trade secret	*	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	S+	TWA: 0.1 mg/m <sup>3</sup>
	STEL: 0.3 mg/m <sup>3</sup>	Ceiling: 0.3 mg/m <sup>3</sup>	H*	TWA: 0.1 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>
	TWA: 0.1 mg/m <sup>3</sup>	D*	STEL: 0.3 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>	iho*
	-		ı	Α*	
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Trade secret	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.1 ppm	TWA: 0.1 mg/m <sup>3</sup>
	STEL: 0.3 mg/m <sup>3</sup>		Peak: 0.4 mg/m <sup>3</sup>	TWA: 0.3 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup>
	*			STEL: 0.1 ppm	
				STEL: 0.3 mg/m <sup>3</sup>	
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania

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Trade secret		-	-	-	TWA:	5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>
Trade secret		A: 0.1 mg/m <sup>3</sup> L: 0.3 mg/m <sup>3</sup> Sk*	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup> cute*	Ceiling: 0.29 mg/m³ Ceiling: 0.11 ppm	STEL:	0.1 mg/m <sup>3</sup> 0.3 mg/m <sup>3</sup> Ada*	O* TWA: 0.1 mg/m³ STEL: 0.3 mg/m³
Chemical name	Lu	xembourg	Malta	Netherlands	No	orway	Poland
Trade secret		Peau* L: 0.3 mg/m <sup>3</sup> A: 0.1 mg/m <sup>3</sup>	skin* STEL: 0.3 mg/m³ TWA: 0.1 mg/m³	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup> H*		0.1 mg/m <sup>3</sup> 0.3 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup> skóra*
Chemical name		Portugal	Romania	Slovakia	Slo	ovenia	Spain
Trade secret	STE Ceilin Ceilii	A: 0.1 mg/m <sup>3</sup> L: 0.3 mg/m <sup>3</sup> g: 0.29 mg/m <sup>3</sup> ng: 0.11 ppm Cutânea*	TWA: 0.1 mg/m³ STEL: 0.3 mg/m³ P*	TWA: 0.1 mg/m³ K* Ceiling: 0.3 mg/m³	STEL:	0.1 mg/m <sup>3</sup> 0.3 mg/m <sup>3</sup> K*	TWA: 0.1 mg/m³ STEL: 0.3 mg/m³ vía dérmica*
Chemical name		Sv	veden	Switzerland		Uni	ted Kingdom
Trade secret			0.1 mg/m <sup>3</sup> (GV: 0.3 mg/m <sup>3</sup>	TWA: 0.2 mg/m STEL: 0.4 mg/m			A: 0.1 mg/m³ EL: 0.3 mg/m³ Sk*

# **Biological occupational exposure limits**

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

Derived No Effect Level (DNEL)
Predicted No Effect Concentration
(PNEC)

No information available.

8.2. Exposure controls

Personal protective equipment

**Eye/face protection** No special protective equipment required.

**Skin and body protection**No special protective equipment required.

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.

**Environmental exposure controls** No information available.

# **SECTION 9: Physical and chemical properties**

9.1. Information on basic physical and chemical properties

Physical state Liquid

Appearance aqueous solution colourless
Odour Odourless.

Odour threshold No information available

Property Values Remarks • Method

Melting point / freezing point 0 °C

Initial boiling point and boiling range100 °C

FlammabilityNo data availableNone knownFlammability Limit in AirNone known

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Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

Flash point No data available None known **Autoignition temperature** No data available None known None known

**Decomposition temperature** 

7.4

pH (as aqueous solution) No data available No information available None known

No data available Kinematic viscosity No data available **Dynamic viscosity** Water solubility Miscible in water

Solubility(ies) No data available None known Partition coefficient No data available None known Vapour pressure No data available None known Relative density No data available None known

**Bulk density** No data available **Liquid Density** No data available

Relative vapour density No data available None known

Particle characteristics

**Particle Size** No information available No information available **Particle Size Distribution** 

9.2. Other information

9.2.1. Information with regards to physical hazard classes

Not applicable

9.2.2. Other safety characteristics

No information available

# **SECTION 10: Stability and reactivity**

10.1. Reactivity

No information available. Reactivity

10.2. Chemical stability

Stability Stable under normal conditions.

**Explosion data** 

Sensitivity to mechanical impact None. Sensitivity to static discharge

10.3. Possibility of hazardous reactions

Avoid contact with metals. This product contains Sodium azide. Sodium azide can react with Possibility of hazardous reactions

Copper, Brass, Lead, and solder in piping systems to form explosive compounds and toxic

None known

gases.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials Metals.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

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# **SECTION 11: Toxicological information**

# 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Information on likely routes of exposure

#### **Product Information**

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

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

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

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

Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** No information available.

Acute toxicity

**Numerical measures of toxicity** 

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

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

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

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

**Respiratory or skin sensitisation** 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.

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Aspiration hazard

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

**Endocrine disrupting properties** This product does not contain any known or suspected endocrine disruptors.

No information available.

11.2.2. Other information

Other adverse effects No information available.

# **SECTION 12: Ecological information**

12.1. Toxicity

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

**Unknown aquatic toxicity**Contains 0.02 % of components with unknown hazards to the aquatic environment.

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

### 12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

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

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

Chemical name	PBT and vPvB assessment

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Trade secret	The substance is not PBT / vPvB
Trade secret	PBT assessment does not apply
Trade secret	The substance is not PBT / vPvB

### 12.6. Endocrine disrupting properties

**Endocrine disrupting properties** No information available.

#### 12.7. Other adverse effects

No information available.

# **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Waste from residues/unused products

Contaminated packaging

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. Flush pipes with water frequently if discarding solutions containing Sodium azide into metal piping systems.

Do not reuse empty containers.

# **SECTION 14: Transport information**

#### IATA

14.1UN number or ID numberNot regulated14.2UN proper shipping nameNot regulated14.3Transport hazard class(es)Not regulated14.4Packing groupNot regulated14.5Environmental hazardsNot applicable

14.6 Special Precautions for Users

Special Provisions None

# <u>IMDG</u>

14.1 UN number or ID number
14.2 UN proper shipping name
14.3 Transport hazard class(es)
14.4 Packing group
14.5 Environmental hazards
Not regulated
Not regulated
Not regulated
Not applicable

14.6 Special Precautions for Users

Special Provisions None

**14.7 Maritime transport in bulk** No information available

according to IMO instruments

#### RID

14.1UN numberNot regulated14.2UN proper shipping nameNot regulated14.3Transport hazard class(es)Not regulated14.4Packing groupNot regulated14.5Environmental hazardsNot applicable

14.6 Special Precautions for Users

Special Provisions None

#### ADR

14.1 UN number or ID numberNot regulated14.2 UN proper shipping nameNot regulated14.3 Transport hazard class(es)Not regulated14.4 Packing groupNot regulated14.5 Environmental hazardsNot applicable

14.6 Special Precautions for Users

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**Special Provisions** 

None

# **SECTION 15: Regulatory information**

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

### National regulations

Chemic	al name	French RG number	Title
Trade	secret	RG 78	-

#### Germany

Water hazard class (WGK) non-hazardous to water (nwg)

#### **European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

### Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

### **Persistent Organic Pollutants**

Not applicable

### Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Chemical name

Not applicable

Trade secret -	Plant protection agent		
Chemical name	Biocidal Products Regulation (EU) No 528/2012 (BPR)		
Trade secret -	Product-type 1: Human hygiene		

EU - Plant Protection Products (1107/2009/EC)

International Inventories Contact supplier for inventory compliance status

# 15.2. Chemical safety assessment

Chemical Safety Report No information available

# **SECTION 16: Other information**

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

#### Legend

SVHC: Substances of Very High Concern for Authorisation:

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

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value \* Skin designation

Classification procedure

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od Used ulation method ulation method
ulation method ulation method
ulation method
detice weatherd
ulation method

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

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)

European Chemicals Agency (ECHA) (ECHA\_API)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

National Institute of Technology and Evaluation (NITE)

Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications

Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme

Organisation for Economic Co-operation and Development Screening Information Data Set

World Health Organization

**Revision Note** Reformatted and updated existing information

Revision date 17-May-2023

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 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** 

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# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 09-Aug-2023 Revision Number 1.1

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product Name Bio-Plex Pro Conjugated Magnetic Beads (20X)

Catalogue Number(s) 10020566, 10020556, 10020557, 10020558, 10021202, 10022437, 10022421, 10022422,

10022423, 10022424, 10022425, 10022426, 10022427, 10022428, 10022429, 10022430, 10022431, 10022432, 10022433, 10022434, 10022435, 10022436, 10023361, 10023321, 10023322, 10023323, 10023324, 10023325, 10023326, 10023327, 10023328, 10023329, 10023330, 10023331, 10023333, 10023334, 10023335, 10040192, 10040193, 10040194, 10040195, 10040196, 10040197, 10040198, 10040199, 10040200, 10040201, 10040202

Nanoforms Not applicable

Pure substance/mixture Mixture

Contains 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use Laboratory chemicals

Uses advised against No information available

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

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 Ltd

The Junction Station Road

Watford, WD17 1ET

UK

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

For further information, please contact

**Technical Service** 00800 00246 723

Ireland: Techsupport.UK@bio-rad.com India: support.india@bio-rad.com

South Africa: cdg\_techsupport\_eemea@bio-rad.com

1.4. Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC Ireland: 353-19014670

CHEMTREC India: 000-800-100-7141 CHEMTREC South Africa: 0-800-983-611

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# **SECTION 2: Hazards identification**

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Skin sensitisation	Category 1A - (H317)
Chronic aquatic toxicity	Category 3 - (H412)

#### 2.2. Label elements

Contains 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone



Signal word Warning

### **Hazard statements**

H317 - May cause an allergic skin reaction

H412 - Harmful to aquatic life with long lasting effects

# Precautionary Statements - EU (§28, 1272/2008)

P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention

P273 - Avoid release to the environment

P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

### 2.3. Other hazards

# **SECTION 3: Composition/information on ingredients**

### 3.1 Substances

Not applicable

### 3.2 Mixtures

Chemical name	Weight-%		`	Classification according		M-Factor	M-Factor
		number	Index No)	to Regulation (EC) No.	concentration		(long-term)
				1272/2008 [CLP]	limit (SCL)		
Water	50 - 100	No data available	231-791-2	No data available	-	-	-
7732-18-5							
Magnetic Beads	10 - 20	No data available	-	No data available	-	-	-
NO-CAS-23							
Trade secret	1 - 2.5	No data available	Listed	No data available	-	-	-
Trade secret	1 - 2.5	No data available	Listed	No data available	-	-	-
Trade secret	0.01 -	No data available	Listed	Acute Tox. 2 (H300)	-	-	-
	0.099			Acute Tox. 1 (H310)			
				(EUH032)			
				Aquatic Acute 1 (H400)			

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				Aquatic Chronic 1			
				(H410)			
Trade secret	0.01 -	No data available	Listed	No data available	-	-	-
	0.099						
Trade secret	0.01 -	No data available	Not Listed	No data available	-	-	-
	0.099						
Trade secret	0.001 -	No data available	Listed	No data available	-	-	-
	0.01						
Trade secret	0.001 -	No data available	Listed	Acute Tox. 3 (H301)	Eye Irrit. 2 ::	100	100
	0.01			, ,	0.06%<=C<0.6		
				Acute Tox. 3 (H331)	%		
					Skin Corr. 1C ::		
				Eye Dam. 1 (H318)	C>=0.6%		
				Skin Sens. 1A (H317)			
				(EUH071)	0.06%<=C<0.6		
				Aquatic Acute 1 (H400)			
				Aquatic Chronic 1	Skin Sens. 1A		
				(H410)	:: C>=0.0015%		
					Eye Dam. 1 :: C>=0.6%		
Antibodies	0.001 -	No data available	_	No data available	0/-0.070		_
NO-CAS-81	0.001 -	i vo uata avaliable	_	INO Uata available	_	-	-
Trade secret	0.01 -	No data available	Not Listed	No data available			
Trade Secret	0.001	No data avallable	NOT LISTED	INO data available	_	_	_
Trade secret	0.01 -	No data available	Not Listed	No data available	_		_
riaue seciel	0.001 -	i vo uata avaliable	INOL LISTER	INO Uata available	_	-	-
	0.01		l				

# Full text of H- and EUH-phrases: see section 16

# **Acute Toxicity Estimate**

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg		Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Water 7732-18-5	89838.9	No data available	No data available	No data available	No data available
Trade secret	5900	5000	No data available	No data available	No data available
Trade secret	3000	10000	Inhalation LC50 Rat >42 mg/L 1 h (no deaths occurred, aerosol, Source: ECHA_API)	>42	Inhalation LC50 Rat >42 mg/L 1 h (no deaths occurred, aerosol, Source: ECHA_API)
Trade secret	27	20	Inhalation LC50 Rat 0.054 - 0.52 mg/L 4 h (dust, Source: ECHA_API)	0.054 - 0.52	Inhalation LC50 Rat 0.054 - 0.52 mg/L 4 h (dust, Source: ECHA_API)
Trade secret	3000	No data available	No data available	No data available	No data available
Trade secret	53	87.12	No data available	No data available	No data available
Trade secret	37000	No data available	Inhalation LC50 Rat >5.1 mg/L 4 h (no deaths occurred, aerosol, Source: ECHA_API)	>5.1	Inhalation LC50 Rat >5.1 mg/L 4 h (no deaths occurred, aerosol, Source: ECHA_API)

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

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# **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

**General advice** Show this safety data sheet to the doctor in attendance.

**Inhalation** Remove to fresh air.

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

Consult a doctor.

**Skin contact** Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation

or allergic reactions see a doctor.

**Ingestion** Rinse mouth.

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

Symptoms Itching. Rashes. Hives.

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

**Note to doctors**May cause sensitisation in susceptible persons. Treat symptomatically.

# **SECTION 5: Firefighting measures**

5.1. Extinguishing media

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.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the

chemical

Product is or contains a sensitiser. May cause sensitisation by skin contact.

5.3. Advice for firefighters

Special protective equipment and

precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

# SECTION 6: Accidental release measures

### 6.1. 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.

6.2. Environmental precautions

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

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### 6.3. 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**Take up mechanically, placing in appropriate containers for disposal.

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

6.4. Reference to other sections

**Reference to other sections** See section 8 for more information. See section 13 for more information.

# **SECTION 7: Handling and storage**

### 7.1. 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 it before reuse.

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

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

# **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters

#### **Exposure Limits**

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Trade secret	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup>	TWA: 0.1 mg/m³ STEL 0.3 mg/m³ H*	TWA: 0.1 mg/m³ D*	STEL: 0.3 mg/m³ TWA: 0.1 mg/m³ K*	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup>
Trade secret	-	TWA: 0.05 mg/m <sup>3</sup> Sh+	-	-	-
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Trade secret	* STEL: 0.3 mg/m³ TWA: 0.1 mg/m³	TWA: 0.1 mg/m³ Ceiling: 0.3 mg/m³ D*	TWA: 0.1 mg/m <sup>3</sup> H* STEL: 0.3 mg/m <sup>3</sup>	S+ TWA: 0.1 mg/m³ STEL: 0.3 mg/m³ A*	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup> iho*
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Trade secret	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup> *	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup> Peak: 0.4 mg/m <sup>3</sup>	TWA: 0.1 ppm TWA: 0.3 mg/m³ STEL: 0.1 ppm STEL: 0.3 mg/m³	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup>
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Trade secret	-	-	-	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>
Trade secret	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup>	Ceiling: 0.29 mg/m <sup>3</sup> Ceiling: 0.11 ppm	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup>	O* TWA: 0.1 mg/m <sup>3</sup>

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	Sk*	cute*		А	da*	STEL: 0.3 mg/m <sup>3</sup>	
Chemical name	Luxembourg	Malta	Netherlands	No	rway	Poland	
Trade secret	Peau* STEL: 0.3 mg/m³ TWA: 0.1 mg/m³	skin* STEL: 0.3 mg/m³ TWA: 0.1 mg/m³	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup> H*		0.1 mg/m <sup>3</sup> 0.3 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup> skóra*	
Chemical name	Portugal	Romania	Slovakia	Slo	venia	Spain	
Trade secret	TWA: 0.1 mg/m³ STEL: 0.3 mg/m³ Ceiling: 0.29 mg/m³ Ceiling: 0.11 ppm Cutânea*	TWA: 0.1 mg/m³ STEL: 0.3 mg/m³ P*	TWA: 0.1 mg/m³ K* Ceiling: 0.3 mg/m³	STEL: (	).1 mg/m³ ).3 mg/m³ K*	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup> vía dérmica*	
Chemical name	Sı	weden	Switzerland		Uni	ted Kingdom	
Trade secret		0.1 mg/m <sup>3</sup> (GV: 0.3 mg/m <sup>3</sup>	TWA: 0.2 mg/m³ STEL: 0.4 mg/m³			TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup> Sk*	
Trade secret		-	S+ TWA: 0.2 mg/m³ STEL: 0.4 mg/m³			-	

#### Biological occupational exposure limits

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

Derived No Effect Level (DNEL)
Predicted No Effect Concentration
(PNEC)

No information available.

8.2. Exposure controls

Personal protective equipment

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

**Hand protection** Wear suitable gloves.

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

exceeded or irritation is experienced, ventilation and evacuation may be required.

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

**Environmental exposure controls** No information available.

# **SECTION 9: Physical and chemical properties**

9.1. Information on basic physical and chemical properties

Physical state Liquid

Appearance Dilute bead suspension in aqueous solution

ColourcolourlessOdourOdourless.

Odour threshold No information available

Property Values Remarks • Method

Melting point / freezing pointNo data availableNone knownInitial boiling point and boiling rangeNo data availableNone knownFlammabilityNo data availableNone knownFlammability Limit in AirNone known

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### **Bio-Plex Pro Conjugated Magnetic Beads (20X)**

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Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

Flash point No data available None known **Autoignition temperature** No data available None known None known

**Decomposition temperature** 

7.4

pH (as aqueous solution) No data available No information available None known

No data available Kinematic viscosity No data available **Dynamic viscosity** Water solubility Partially miscible

Solubility(ies) No data available **Partition coefficient** No data available Vapour pressure No data available Relative density No data available **Bulk density** No data available

**Liquid Density** No data available Relative vapour density No data available

**Particle characteristics** 

**Particle Size** No information available No information available **Particle Size Distribution** 

9.2. Other information

9.2.1. Information with regards to physical hazard classes

Not applicable

9.2.2. Other safety characteristics

No information available

# **SECTION 10: Stability and reactivity**

None known

None known

None known

None known

None known

None known

10.1. Reactivity

No information available. Reactivity

10.2. Chemical stability

Stability Stable under normal conditions.

**Explosion data** 

Sensitivity to mechanical impact None. Sensitivity to static discharge

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions 
None under normal processing.

10.4. Conditions to avoid

None known based on information supplied. Conditions to avoid

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

# SECTION 11: Toxicological information

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# 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

# Information on likely routes of exposure

**Product Information** 

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

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

**Skin contact** May cause sensitisation by skin contact. Specific test data for the substance or mixture is

not available. Repeated or prolonged skin contact may cause allergic reactions with

susceptible persons (based on components).

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

# Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Itching. Rashes. Hives.

Acute toxicity

Numerical measures of toxicity

### **Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Water	> 90 mL/kg (Rat)	-	-
Trade secret	= 5900 mg/kg (Rat)	> 5000 mg/kg (Rat)	-
Trade secret	= 3 g/kg (Rat)	> 10000 mg/kg ( Rabbit )	> 42 mg/L (Rat) 1 h
Trade secret	= 27 mg/kg (Rat)	= 20 mg/kg (Rabbit)	0.054 - 0.52 mg/L (Rat) 4 h
Trade secret	> 3 g/kg (Rat)	-	-
Trade secret	= 53 mg/kg (Rat)	= 87.12 mg/kg ( Rabbit )	-
Trade secret	= 37000 mg/kg (Rat)	-	> 5.1 mg/L (Rat)4 h

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

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

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

**Respiratory or skin sensitisation** May cause an allergic skin reaction.

Germ cell mutagenicity No information available.

**Carcinogenicity** No information available.

**Reproductive toxicity**No information available.

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

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

**Aspiration hazard** No information available.

# 11.2. Information on other hazards

### 11.2.1. Endocrine disrupting properties

Endocrine disrupting properties This product does not contain any known or suspected endocrine disruptors.

### 11.2.2. Other information

Other adverse effects No information available.

# **SECTION 12: Ecological information**

12.1. Toxicity

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

**Unknown aquatic toxicity**Contains 0.09211 % of components with unknown hazards to the aquatic environment.

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

# 12.2. Persistence and degradability

Persistence and degradability No information available.

# 12.3. Bioaccumulative potential

#### **Bioaccumulation**

Component Information

Component information						
Chemical name	Partition coefficient					
Trade secret	0.7					

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# 12.4. Mobility in soil

Mobility in soil No information available.

### 12.5. Results of PBT and vPvB assessment

### PBT and vPvB assessment

Chemical name	PBT and vPvB assessment
Trade secret	The substance is not PBT / vPvB
Trade secret	The substance is not PBT / vPvB
Trade secret	The substance is not PBT / vPvB
Trade secret	The substance is not PBT / vPvB
Trade secret	The substance is not PBT / vPvB

# 12.6. Endocrine disrupting properties

**Endocrine disrupting properties** No information available.

### 12.7. Other adverse effects

No information available.

# **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Waste from residues/unused

products

Dispose of waste in accordance with environmental legislation. Dispose of in accordance

with local regulations.

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

# **SECTION 14: Transport information**

### IATA

Not regulated
Not regulated
Not regulated
Not regulated
Not applicable

14.6 Special Precautions for Users

Special Provisions None

# <u>IMDG</u>

Not regulated
Not regulated
Not regulated
Not regulated
Not applicable

14.6 Special Precautions for Users

Special Provisions None

**14.7 Maritime transport in bulk** No information available according to IMO instruments

# <u>RID</u>

14.1	UN number	Not regulated
14.2	UN proper shipping name	Not regulated
14.3	Transport hazard class(es)	Not regulated
14.4	Packing group	Not regulated

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14.5 Environmental hazards

Not applicable 14.6 Special Precautions for Users

**Special Provisions** None

Not regulated 14.1 UN number or ID number 14.2 UN proper shipping name Not regulated 14.3 Transport hazard class(es) Not regulated 14.4 Packing group Not regulated Not applicable 14.5 Environmental hazards

14.6 Special Precautions for Users

**Special Provisions** None

# **SECTION 15: Regulatory information**

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

# National regulations

#### **France**

Occupational Illnesses (R-463-3, France)

Chemical name	French RG number	Title
Trade secret	RG 78	-

#### **European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

# Authorisations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH	Substance subject to authorisation per
	Annex XVII	REACH Annex XIV
Trade secret -	75.	-

### **Persistent Organic Pollutants**

Not applicable

# Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

EU - Plant Protection Products (1107/2009/EC)

Chemical name	EU - Plant Protection Products (1107/2009/EC)
Trade secret -	Plant protection agent

Biocidal Products Regulation (EU) No 528/2012 (BPR)

Chemical name	Biocidal Products Regulation (EU) No 528/2012 (BPR)
Trade secret -	Product-type 1: Human hygiene
Trade secret -	Product-type 2: Disinfectants and algaecides not intended
	for direct application to humans or animals Product-type 4:
	Food and feed area Product-type 6: Preservatives for
	products during storage Product-type 11: Preservatives for
	liquid-cooling and processing systems Product-type 12:
	Slimicides Product-type 13: Working or cutting fluid
	preservatives

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<u>International Inventories</u> Contact supplier for inventory compliance status

15.2. Chemical safety assessment

Chemical Safety Report No information available

# **SECTION 16: Other information**

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

# Full text of H-Statements referred to under section 3

EUH071 - Corrosive to the respiratory tract

H301 - Toxic if swallowed

H311 - Toxic in contact with skin

H314 - Causes severe skin burns and eye damage

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H331 - Toxic if inhaled

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

#### Legend

SVHC: Substances of Very High Concern for Authorisation:

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

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value \* Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

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

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)

European Chemicals Agency (ECHA) (ECHA\_API)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

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U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

National Institute of Technology and Evaluation (NITE)

Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications

Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme

Organisation for Economic Co-operation and Development Screening Information Data Set

World Health Organization

Revision Note Reformatted and updated existing information

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This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 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** 

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