KIT SAFETY DATA SHEET



Kit Product Name Kit Catalogue Number(s) Bio-Plex Pro Reagent Kit III, 1x96 171304090, 171304090M, 10033778

Revision date

14-Feb-2024

Kit Contents

Catalogue Number(s)	Product Name
9723892, 9703892, 9704415, 10014822, 10014823	Bio-Plex Assay Buffer
171304040, 10027955, 12006121, 12005850	Bio-Plex Pro Assays 10X Wash Buffer
10032400, 10031831, 12005852	Bio-Plex Detection Antibody Diluent HB
10014641, 9704423, 9703895, 171305043, 10022628, 10041561, 12005851	Bio-Plex Sample Diluent
9703888, 9704424, 171305042, 171304080M, 10022368, 12005853	Bio-Plex Standard Diluent
171304501, 9704418, 9703887, 9703897	Streptavidin-PE

KITC / BE

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SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: GB/T 16483-2008, GB/T 17519-2013

Product Name Bio-Plex Assay Buffer Revision date 18-Oct-2022 Revision Number 1.1

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

Product identifier				
Product Name	Bio-Plex Assay Buffer			
Catalogue Number(s)	9723892, 9703892, 9704415, 10014822, 10014823			
Other means of identification				
Pure substance/mixture	Mixture			
Details of the supplier of the safety of	data sheet			
Corporate Headquarters 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. 1st and 2nd Floor, Lumpini 1 Building 239/2, Rajdamri Road, Lumpini, Pathumwan, Bangkok 10330 Thailand		
Technical Service	+66 2 652 8313 ctsthailand@bio-rad.com			
Emergency telephone number				
24 Hour Emergency Phone Number	CHEMTREC Hong Kong: 800-968-793			
Recommended use of the chemical	and restrictions on use			
Recommended use	Laboratory chemicals			
SECTION 2: Hazards identification				
	Emorgonov Oversion]		
	Emergency Overview No significant adverse health effects			
Appearance aqueous solution	Physical state Liquid	Odour Odourless		
Classification of the substance or m	iixture			

Not classified

Label elements

Hazard statements Not classified

Physical and chemical hazards Not applicable.

Health hazards

Immediate Health Effects: Not applicable. Chronic effects: Not applicable.

Environmental hazards

Not applicable

Other hazards which do not result in classification

Not applicable

SECTION 3: Composition/information on ingredients

Substance

Not applicable.

<u>Mixture</u>

Not classified.

Chemical name	Weight-%	CAS No
Water	50 - 100	7732-18-5
Trade secret	1 - 2.5	-
Trade secret	0.3 - 0.99	-
Trade secret	0.1 - 0.299	-
Trade secret	0.01 - 0.099	-

SECTION 4: First aid measures

Description of necessary first aid measures

General advice	No hazards which require special first aid measures.	
Inhalation	Remove to fresh air.	
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.	
Skin contact	Wash skin with soap and water.	
Ingestion	Rinse mouth thoroughly with water.	
Most important symptoms and effects, both acute and delayed	No information available.	
For emergency responders	No information available.	
Note to doctors	Treat symptomatically.	

SECTION 5: Firefighting measures

Extinguishing media

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	No information available.

Specific hazards arising from the No information available. chemical

Special protective actions for fire-fighters

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

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	See section 8 for more information.		
For emergency responders	Use personal protection recommended in Section 8.		
Environmental precautions	See Section 12 for additional Ecological Information.		
Methods and material for containment and cleaning up	Prevent further leakage or spillage if safe to do so. Pick up and transfer to properly labelled containers.		
Precautions to prevent secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.		

SECTION 7: Handling and storage			
Precautions for safe handling	Handle in accordance with good industrial hygiene and safety practice. See Section 8 for information on appropriate personal protective equipment.		
Conditions for safe storage, including any incompatibilities	Store according to product and label instructions.		
Incompatible materials	None known based on information supplied.		

SECTION 8: Exposure controls/personal protection

Occupational 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	China	ACGIH TLV
Trade secret -	Ceiling: 0.3 mg/m ³ Ceil	ing Ceiling: 0.29 mg/m ³ Sodium azide
		Ceiling: 0.11 ppm Hydrazoic acid vapor
Note	;	

Biological occupational exposure limits

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

Monitoring and observation processes No applicable information was found.

Engineering controls

Showers Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

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

SECTION 9: Physical and chemical properties

Information on basis abusised and		
Information on basic physical and of	aqueous solution	
Appearance Colour	colourless	
Physical state	Liquid Odourless	
Odour Odour thread ald	No information available	
Odour threshold	No mormation available	
Property	Values	Remarks • Method
Hq	7.4	
Melting point / freezing point	0°C	
Initial boiling point and boiling rang	∣e 100 °C	
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive	No data available	
limits		
Lower flammability or explosive	No data available	
limits		
Vapour pressure	No data available	None known
Relative vapour density	No data available	None known
Relative density	No data available	None known
Water solubility	Miscible in water	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Additional information	Netennicable	
Explosive properties	Not applicable	
Oxidising properties	Not applicable	

SECTION 10: Stability and reactivity

Stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Sensitivity to mechanical impac Sensitivity to static discharge	t None. None.
Conditions to avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.
Hazardous decomposition products	None known based on information supplied.

SECTION 11: Toxicological information

Acute toxicity

Numerical measures of toxicity

No information available

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

Serious eye damage/eye irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
Specific target organ toxicity — single exposure	Based on available data, the classification criteria are not met.
Specific target organ toxicity — repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

Ecotoxicity

Unknown aquatic toxicity

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

Chemical name	Algae/aquatic plants	Fish	Crustacea
Trade secret	-	LC50: 5560 - 6080mg/L (96h,	EC50: =1000mg/L (48h,
		Lepomis macrochirus)	Daphnia magna)
		LC50: =12946mg/L (96h,	EC50: 340.7 - 469.2mg/L (48h,
		Lepomis macrochirus)	Daphnia magna)
		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)	

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Mobility in soil No information available.

SECTION 13: Disposal considerations

 Waste chemicals
 Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

<u>Contaminated packaging</u> Do not reuse empty containers.

SECTION 14: Transport information

IMDG Transport in bulk according to Annex II of MARPOL and the IBC Code	Not regulated No information available C
IATA	Not regulated
<u>China</u>	Not regulated

Special precautions for user

Please refer to the applicable dangerous goods regulations for additional information

SECTION 15: Regulatory information

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

National regulations

Law of the People's Republic of China on Prevention and Control of Occupational Diseases

Catalogue of occupational hazard factors:	Not applicable.
Catalogue of occupational diseases:	Not applicable.

Regulations on the Control over Safety of Hazardous Chemicals

Inventory of hazardous chemicals		Not applicable.
Chemical name	Inventory of haz	ardous chemicals
Trade secret	Listed, H	lighly toxic
<u>GB 18218-2009 Identification of major hazard installations for dangerous chemicals</u> List of hazardous chemicals under priority management		Not applicable Not applicable
Regulations on Labour Protection in Workplaces Where Toxic Substances Are Used Inventory of highly toxic goods Not applicable Regulations for Environmental Management on the Eirst Import of Chemicals and the Import and Export of Toxic		
Populations for Environmental Management on th	he First Import of Chemicals and the	Import and Export of Toxic

Regulations for Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

List of toxic chemicals severely restricted for import and export in China

Measures for the Environmental Management of New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances Contact supplier for inventory compliance status.

International Regulations

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

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

Prepared ByBio-Rad Laboratories, Environmental Health - SafetyRevision date8-Oct-2022Revision NoteReformatted and updated existing informatureRevision NoteReformatted and updated existing informatureRegend Section - Sector OrganSTELCarcinoganSTELCarcinoganSTELCarcinogan- StelReformature references and source organSTELSchridter Substances and Disase Registry (ATSDR)StelU.S. Environmental Protection Agency ChemView DatabaseEuropean Food Safety Authority (EFSA)PAGency for Toxic Substances and Disase Registry (ATSDR)U.S. Environmental Protection Agency ChemView DatabaseEuropean Food Safety Authority (EFSA)PAGE Exposure Guideline Level(s) (AELG(s))U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide ActU.S. Environmental Protection AgencyPadadous Substance DatabaseInternational Unform Chemicals Federal Insecticide, Fungicide, and Rodenticide ActU.S. Environmental Protection AgencyNGSH (National Instruction Database (IUCLID)Japa GHSJapa GHSNucstrial Industrial Industrial Chemicales Information Database (IUCLID)National Library of Medicine's ChemIcel Proteopoment Environment, Health, and Safety PublicationsNational Library of Medicine's ChemIcel Operporter Invironment Health, and Safety PublicationsNational Library of Medicine's ChemIcel Operporter Invironment Health, and Safety PublicationsNational Library of Medicine's ChemIcel SubstanceNational Library of Medicine's C	SECTION 16: Other information			
Revision Note Reformatted and updated existing information. Abbreviations and acronyms Eggend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION TWA TWA (time-weighted average) STEL Stell STEL (Short Term Exposure Limit) Ceiling Maximum limit value * C Carcinogen Skin designation Key literature references and sources for data used to compile the SDS Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) EPA (Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) EPA (Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) Japan GHS Classification Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS) Nutsoral Instruct for Occupational Safety and Health) National Library of Medicine's ChemID Plus (NLM CP) National Library of Medicine's Chem DPlus (NLM PUBMED) National Library of Medicine's Chemical Classification and Information Database (CCID) Organisation for	Prepared By	Bio-Rad Laboratories, En	nvironmental Health	n and Safety
Abbreviations and acronyms Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit) Ceiling Maximum limit value * Skin designation C Carcinogen * Skin designation Key literature references and sources for data used to compile the SDS Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) EPA (Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database Information Database (IUCLID) Japan GHS Classification Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS) NIOSH (National Institute for Occupational Safety and Health) NLM PUBMED) National Library of Medicine's PubMed database (NLM PUBMED) National Library of Medicine's Chemical Null PUBMED) National Library of Medicine's Chemical and Information Database (CCID) Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications Organisation for Economic Co-operation and Development Screening Information Data Set Registry	Revision date	18-Oct-2022		
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U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) EPA (Environmental Protection Agency) Acute Exposure Guideline Level(s) (AEGL(s)) U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) Japan GHS Classification 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 Library of Medicine's PubMed database (CCID) Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications Organisation for Economic Co-operation and Development Screening Information Data Set RTECS (Registry of Toxic Effects of Chemical Substances)	Legend Section 8: EXPOSURE CON TWA TWA (time-weigh Ceiling Maximum limit va C Carcinogen Key literature references and source	ited average) alue ces for data used to comp	STEL *	
Disclaimer	Key literature references and sources for data used to compile the SDS Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) EPA (Environmental Protection Agency) Acute Exposure Guideline Level(s) (AEGL(s)) U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) Japan GHS Classification 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 Environment, Health, and Safety Publications Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications			

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

End of Safety Data Sheet



SAFETY DATA SHEET

Legal Entity / Contact Address

239/2, Rajdamri Road, Lumpini, Pathumwan, Bangkok 10330

Thailand

1st and 2nd Floor, Lumpini 1 Building

This safety data sheet was created pursuant to the requirements of: GB/T 16483-2008, GB/T 17519-2013

Product Name Bio-Plex Pro Assays 10X Wash Buffer Revision date 07-Feb-2024 Revision Number 2

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

Product identifier

Product Name Bio-Plex Pro Assays 10X Wash Buffer

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

Other means of identification

Pure substance/mixture

Mixture

USA

Details of the supplier of the safety data sheet

Corporate Headquarters Bio-Rad Laboratories Inc. 1000 Alfred Nobel Drive

Hercules, CA 94547 USA

Technical Service

+66 2 652 8313 ctsthailand@bio-rad.com

Manufacturer

2000 Alfred Nobel Drive

Hercules, California 94547

Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC Hong Kong: 800-968-793

Recommended use of the chemical and restrictions on use

Recommended use

Laboratory chemicals

SECTION 2: Hazards identification

Emergency Overview No significant adverse health effects			
Appearance aqueous solution	Physical state Liquid	Odour	Odourless
Classification of the substance or mixture			
Not classified			
Label elements			
Hazard statements			

Bio-Rad Laboratories, Life Science Group Bio-Rad Laboratories Ltd.

Not classified

Precautionary statements

Physical and chemical hazards

Not applicable.

Health hazards

Immediate Health Effects: Not applicable. Chronic effects: Not applicable.

Environmental hazards

Not applicable

Other hazards which do not result in classification Not applicable

SECTION 3: Composition/information on ingredients

Substance

Not applicable.

<u>Mixture</u>

Not classified.

Chemical name	Weight-%	CAS No
Trade secret	5 - 10	-

SECTION 4: First aid measures

Description of necessary first aid measures

General advice	No hazards which require special first aid measures.
Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.
Skin contact	Wash skin with soap and water.
Ingestion	Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	No information available.
For emergency responders	No information available.
Note to doctors	Treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	No information available.
Specific hazards arising from the chemical	No information available.

Special protective actions for fire-fighters

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

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures			
Personal precautions	See section 8 for more information.		
For emergency responders	Use personal protection recommended in Section 8.		
Environmental precautions	See Section 12 for additional Ecological Information.		
Methods and material for containment and cleaning up	Prevent further leakage or spillage if safe to do so. Pick up and transfer to properly labelled containers.		
Precautions to prevent secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.		

SECTION 7: Handling and storage		
Precautions for safe handling	Handle in accordance with good industrial hygiene and safety practice. See Section 8 for information on appropriate personal protective equipment.	
Conditions for safe storage, including any incompatibilities	Store according to product and label instructions.	
Incompatible materials	Metals.	

SECTION 8: Exposure controls/personal protection

Occupational exposure limits

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

Note

See section 16 for terms and abbreviations

Biological occupational exposure limits

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

Monitoring and observation processes

No applicable information was found.

Engineering controls	Showers
	Eyewash stations
	Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	Wear suitable protective clothing.
Hand protection	Wear suitable gloves.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are

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

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: Physical and chemical properties

Information on basic physical and of Appearance Colour Physical state Odour Odour threshold	<u>Chemical properties</u> aqueous solution colourless Liquid Odourless No information available	
Property_	Values_	Remarks • Method
pH	7.4	
Melting point / freezing point	No data available	None known
Initial boiling point and boiling rang	je 100 °C	
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapour pressure	No data available	None known
Relative vapour density	No data available	None known
Relative density	No data available	None known
Water solubility	Miscible in water	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Additional information Explosive properties Oxidising properties	Not applicable Not applicable	

SECTION 10: Stability and reactivity

<u>Stability</u>	Stable under normal conditions.		
Possibility of hazardous reactions	Avoid contact with metals. This product contains Sodium azide. Sodium azide can react with Copper, Brass, Lead, and solder in piping systems to form explosive compounds and toxic gases.		
Sensitivity to mechanical impac Sensitivity to static discharge	t None. None.		
Conditions to avoid	None known based on information supplied.		
Incompatible materials	Metals.		

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

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			
Skin corrosion/irritation	Based on available data, t	Based on available data, the classification criteria are not met.				
Serious eye damage/eye irritat	on Based on available data, t	Based on available data, the classification criteria are not met.				
Respiratory or skin sensitisation	on Based on available data, t	Based on available data, the classification criteria are not met.				
Germ cell mutagenicity	Based on available data, t	Based on available data, the classification criteria are not met.				
Carcinogenicity	Based on available data, t	Based on available data, the classification criteria are not met.				
Reproductive toxicity	Based on available data, t	he classification criteria are not m	net.			
Specific target organ toxicity – single exposure	 Based on available data, t 	he classification criteria are not m	net.			
Specific target organ toxicity – repeated exposure	 Based on available data, t 	he classification criteria are not m	net.			
Aspiration hazard	Based on available data, t	he classification criteria are not m	net.			

SECTION 12: Ecological information

Ecotoxicity

Unknown aquatic toxicity

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

Chemical name	Algae/aquatic plants	Fish	Crustacea
Trade secret	-	LC50: 5560 - 6080mg/L (96h,	EC50: =1000mg/L (48h,
		Lepomis macrochirus)	Daphnia magna)
		LC50: =12946mg/L (96h,	EC50: 340.7 - 469.2mg/L (48h,
		Lepomis macrochirus)	Daphnia magna)
		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)	

Persistence and degradability

No information available.

Bioaccumulative potential No information available.

Mobility in soil

No information available.

	Flush pipes with water frequently if discarding solutions containing Sodium azide into metal piping systems. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

SECTION 14: Transport information

 IMDG
 Not regulated

 Transport in bulk according to
 No information available

 Annex II of MARPOL and the IBC
 Code

IATA Not regulated

China Not regulated

Special precautions for user

Please refer to the applicable dangerous goods regulations for additional information

SECTION 15: Regulatory information	SECTION	15: Regulatory	information
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Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

Law of the People's Republic of China on Prevention and Control of Occupational Diseases

Catalogue of occupational hazard factors: Catalogue of occupational diseases:	Not applicable. Not applicable.
Regulations on the Control over Safety of Hazardous Chemicals Inventory of hazardous chemicals	Not applicable.
GB 18218-2009 Identification of major hazard installations for dangerous chemicals	Not applicable
List of hazardous chemicals under priority management	Not applicable
Regulations on Labour Protection in Workplaces Where Toxic Substances Are Used Inventory of highly toxic goods	Not applicable
Regulations for Environmental Management on the First Import of Chemicals and the Chemicals	Import and Export of Toxic
List of toxic chemicals severely restricted for import and export in China	Not applicable
Measures for the Environmental Management of New Chemical Substances IECSC - China Inventory of Existing Chemical Substances Contact supplier for inven	tory compliance status.
International Regulations	
The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable	

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

SECTION 16: Other information

Prepared By

Bio-Rad Laboratories, Environmental Health and Safety

Revision date	07-Feb-2024		
Revision Note	SDS sections update	SDS sections updated. 2. 12.	
Abbreviations and acronymsLegendSection 8: EXPOSURETWATWA (time-vCeilingMaximum linCCarcinogen	veighted average)	PROTECTION STEL *	STEL (Short Term Exposure Limit) Skin designation
Key literature references and Agency for Toxic Substances ar U.S. Environmental Protection A European Food Safety Authority EPA (Environmental Protection Acute Exposure Guideline Leve U.S. Environmental Protection A U.S. Environmental Protection A Food Research Journal Hazardous Substance Database International Uniform Chemical Japan GHS Classification Australian National Industrial Cf NIOSH (National Institute for Oc National Library of Medicine's C National Library of Medicine's P National Toxicology Program (N New Zealand's Chemical Classi Organisation for Economic Co-co Organisation for Economic Co-co RTECS (Registry of Toxic Effec World Health Organization	Id Disease Registry (ATSDF Igency ChemView Database (EFSA) Agency) (s) (AEGL(s)) Igency Federal Insecticide, Igency High Production Volu Information Database (IUCL Information Database (IUCL Information Database (IUCL Information Database (IUCL Information Database (IUCL Information Database (IUCL Information Information Database Information and Information Database Information and Development Information and Development Information and Development	R) Fungicide, and Ro ume Chemicals ID) sessment Schemo h) SMED) abase (CCID) Environment, Hea High Production V	e (NICNAS) Ith, and Safety Publications ′olume Chemicals Programme

Disclaimer

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

End of Safety Data Sheet



SAFETY DATA SHEET

Legal Entity / Contact Address

Pathumwan, Bangkok 10330

Thailand

1st and 2nd Floor, Lumpini 1 Building 239/2, Rajdamri Road, Lumpini,

This safety data sheet was created pursuant to the requirements of: GB/T 16483-2008, GB/T 17519-2013

Product Name Bio-Plex Detection Antibody Diluent HB Revision date 17-May-2023 Revision Number 1.1

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

Product identifier

Product Name Bio-Plex Detection Antibody Diluent HB

Catalogue Number(s)

10032400, 10031831, 12005852

Other means of identification

Pure substance/mixture

Mixture

USA

Details of the supplier of the safety data sheet

Corporate Headquarters Bio-Rad Laboratories Inc.

1000 Alfred Nobel Drive Hercules, CA 94547 USA

Technical Service

+66 2 652 8313 ctsthailand@bio-rad.com

Manufacturer

2000 Alfred Nobel Drive

Hercules, California 94547

Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC Hong Kong: 800-968-793

Recommended use of the chemical and restrictions on use

Recommended use

Laboratory chemicals

SECTION 2: Hazards identification

Emergency Overview No significant adverse health effects			
Appearance aqueous solution	Physical state Liquid	Odour	Odourless
Classification of the substance or mixture			
Not classified			
Label elements			

Bio-Rad Laboratories, Life Science Group Bio-Rad Laboratories Ltd.

Hazard statements Not classified

Physical and chemical hazards Not applicable.

Health hazards

Immediate Health Effects: Not applicable. Chronic effects: Not applicable.

Environmental hazards

Not applicable

Other hazards which do not result in classification

Contains animal source material (Cattle)

SECTION 3: Composition/information on ingredients

Substance

Not applicable.

<u>Mixture</u>

Not classified.

Chemical name	Weight-%	CAS No
Water	50 - 100	7732-18-5
Trade secret	5 - 10	-
Antibodies	1 - 2.5	NO-CAS-81
Trade secret	0.3 - 0.99	-
Trade secret	0.1 - 0.299	-
Trade secret	0.1 - 0.299	-
Trade secret	0.01 - 0.099	-
Trade secret	0.01 - 0.099	-
Trade secret	0.001 - 0.01	-
Trade secret	< 0.001	_
Trade secret	< 0.001	-

SECTION 4: First aid measures

Description of necessary first aid measures

General advice	No hazards which require special first aid measures.
Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.
Skin contact	Wash skin with soap and water.
Ingestion	Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	No information available.
For emergency responders	No information available.
Note to doctors	Treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	No information available.
Specific hazards arising from the chemical	No information available.
Special protective actions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	See section 8 for more information.	
For emergency responders	Use personal protection recommended in Section 8.	
Environmental precautions	See Section 12 for additional Ecological Information.	
Methods and material for containment and cleaning up	Prevent further leakage or spillage if safe to do so. Pick up and transfer to properly labelled containers.	
Precautions to prevent secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.	

SECTION 7: Handling and storage			
Precautions for safe handling	Handle in accordance with good industrial hygiene and safety practice. information on appropriate personal protective equipment.	See Section 8 for	
Conditions for safe storage, including any incompatibilities	Store according to product and label instructions.		
Incompatible materials	None known based on information supplied.		

SECTION 8: Exposure controls/personal protection

Occupational 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	China	ACGIH TLV		
Trade secret -	Ceiling: 0.3 mg/m ³ Ceiling	Ceiling: 0.29 mg/m ³ Sodium azide		
		Ceiling: 0.11 ppm Hydrazoic acid vapor		

Note

See section 16 for terms and abbreviations

Biological occupational exposure limits

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

Monitoring and observation processes

No applicable information was found.

Engineering controls	Showers Eyewash stations Ventilation systems.
Individual protection measures, suc	ch as personal protective equipment
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	Wear suitable protective clothing.
Hand protection	Wear suitable gloves.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: Physical and chemical properties

Information on basic physical and o	hemical properties	
Appearance	aqueous solution	
Colour	colourless	
Physical state	Liquid	
Odour	Odourless	
Odour threshold	No information available	
Proporty	Values	Domorko - Mothod
Property	<u>Values</u> 7.4	Remarks • Method
pH Malija u sint (fransjan u sint		
Melting point / freezing point	No data available	None known
Initial boiling point and boiling rang		
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive	No data available	
limits		
Vapour pressure	No data available	None known
Relative vapour density	No data available	None known
Relative density	No data available	None known
Water solubility	Miscible in water	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Additional information Explosive properties Oxidising properties	Not applicable Not applicable	
- ···		

SECTION 10: Stability and reactivity

Stability

Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

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

None known based on information supplied.

Incompatible materials None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

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
Trade secret	= 53 mg/kg (Rat)	= 87.12 mg/kg (Rabbit)	-

Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
Reproductive toxicity Specific target organ toxicity — single exposure	Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met.
Specific target organ toxicity —	

SECTION 12: Ecological information

Ecotoxicity

Unknown aquatic toxicity

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

Chemical name	Algae/aquatic plants	Fish	Crustacea
Trade secret	-	LC50: 5560 - 6080mg/L (96h,	EC50: =1000mg/L (48h,
		Lepomis macrochirus)	Daphnia magna)

	LC50	: =12946mg/L (96h,	EC50: 340.7 - 469.2mg/L (48h,
	Lepo	omis macrochirus)	Daphnia magna)
	LC50: 6	6020 - 7070mg/L (96h,	
	Pime	ephales promelas)	
	LC50): =7050mg/L (96h,	
	Pime	ephales promelas)	
	LC50: 6	420 - 6700mg/L (96h,	
	Pime	ephales promelas)	
	LC50: 4	747 - 7824mg/L (96h,	
	Once	orhynchus mykiss)	
Trade secret	- LC5	50: =0.8mg/L (96h,	-
	Once	orhynchus mykiss)	
	LC50: =0	0.7mg/L (96h, Lepomis	
		macrochirus)	
	LC50	0: =5.46mg/L (96h,	
		ephales promelas)	

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Chemical name	Partition coefficient
Trade secret	0.7

Mobility in soil

No information available.

SECTION 13: Disposal considerations

<u>Waste chemicals</u> Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

<u>Contaminated packaging</u> Do not reuse empty containers.

SECTION 14: Transport information

IMDG Transport in bulk according to Annex II of MARPOL and the IB	Not regulated No information available
Code	•
IATA	Not regulated

<u>China</u>

Special precautions for user

Please refer to the applicable dangerous goods regulations for additional information

Not regulated

SECTION 15: Regulatory information

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

National regulations

Law of the People's Republic of China on Prevention and Control of Occupational Diseases

Catalogue of occupational hazard factors: Catalogue of occupational diseases: Not applicable. Not applicable.

Regulations on the Control over Safety of Hazardous Chemicals

Inventory of hazardous chemicals	Not applicable.
Chemical name	Inventory of hazardous chemicals

Trade secret	Listed, H	Highly toxic
GB 18218-2009 Identification of major hazard installa	ations for dangerous chemicals	Not applicable
List of hazardous chemicals under priority mana	gement	Not applicable
Regulations on Labour Protection in Workplaces Inventory of highly toxic goods	Where Toxic Substances Are Used	Not applicable
Regulations for Environmental Management on t Chemicals	he First Import of Chemicals and the	e Import and Export of Toxic
List of toxic chemicals severely restricted for import a	and export in China	Not applicable
Measures for the Environmental Management of New Chemical Substances IECSC - China Inventory of Existing Chemical Substances Contact supplier for inventory compliance status.		
International Regulations		

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

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

SECTION 16: Other information Prepared By Bio-Rad Laboratories, Environmental Health and Safety Revision date 17-May-2023 Revision Note Reformatted and updated existing information. Abbreviations and acronyms Eegend_Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION TWA TWVA (time-weighted average) STEL Stelling Maximum limit value * C Carcinogen Skin designation Key literature references and sources for data used to compile the SDS Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) EPA (Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Information Database (IUCLID) U.S. Environmental Information Database (IUCLID) Japan GHS Classificatio 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 ChemID Plus (NLM CIP) National				
Revision date 17-May-2023 Revision Note Reformatted and updated existing information. Abbreviations and acronyms Eegend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION TWA TWA (time-weighted average) STEL View TWA (time-weighted average) STEL Colling Maximum limit value * Colling Maximum limit value * Colling Maximum limit value * String Stringerstein Vission Protection Agency ChemView Database Skin designation European Food Safety Authority (EFSA) Evopean Food Safety Authority (EFSA) PA (Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) Japan GHS Classification Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS) NIOSH (National Institute for Occupational Safety and Health) National Library of Medicine's Publed database (NLM PUBMED) National Library of Medicine's ChemID Plus (NLM CIP) National Library of Medicine's Chemical Substitication and Assessment Scheme (NICNAS) NIOSH (National Institute fo	SECTION 16: Other inform	nation		
Revision Note Reformatted and updated existing information. Abbreviations and acronyms Eegend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION TWA TWA (time-weighted average) STEL Stell STEL (Short Term Exposure Limit) Ceiling Maximum limit value * C Carcinogen Skin designation Key literature references and sources for data used to compile the SDS Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) EPA (Environmental Protection Agency ChemView Database Evaluation Stell Stell V.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) Japan GHS Classification Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS) NIOSH (National Institute for Occupational Safety and Health) National Library of Medicine's PubMed database (NLM PUBMED) National Library of Medicine's ChemID Plus (NLM CIP) National Library of Medicine's Cooperation and Development Environment, Health, and Safety Publications	Prepared By	Bio-Rad Laboratories, Environmental Health and Safety		
Abbreviations and acronyms Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit) Ceiling Maximum limit value * Skin designation C Carcinogen * Skin designation Key literature references and sources for data used to compile the SDS Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) EVALUATION Acute Exposure Guideline Level(s) (AEGL(s)) U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) Japan GHS Classification Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS) NIOSH (National Institute for Occupational Safety and Health) National Library of Medicine's PubMed database (NLM PUBMED) National Library of Medicine's PubMed database (NLM PUBMED) National Classification and Information Database (CCID) Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications Organisation for Economic Co-operation and Develo	Revision date	17-May-2023		
Legend Section 8: EXPOŠURE CONTROLS/PERSONAL PROTECTION TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit) Ceiling Maximum limit value * Skin designation C Carcinogen Key literature references and sources for data used to compile the SDS Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) EPA (Environmental Protection Agency) Acute Exposure Guideline Level(s) (AEGL(s)) U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) Japan GHS Classification Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS) NIOSH (National Institute for Occupational Safety and Health) National Library of Medicine's PubMed database (NLM PUBMED) National Library of Medicine's Co-operation and Development Environment, Health, and Safety Publications Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications Organisation for Economic Co-operation and Development Screening Information Data Set	Revision Note	Reformatted and update	d existing information	on.
	Legend Section 8: EXPOSURE CONTWATWA (time-weightCeilingMaximum limit vaCCarcinogenKey literature references and sourceAgency for Toxic Substances and DisU.S. Environmental Protection AgenceEuropean Food Safety Authority (EFSEPA (Environmental Protection AgenceAcute Exposure Guideline Level(s) (AU.S. Environmental Protection AgenceV.S. Environmental Protection AgenceU.S. Environmental Protection AgenceU.S. Environmental Protection AgenceV.S. Environmental Protection AgenceFood Research JournalHazardous Substance DatabaseInternational Uniform Chemical InformJapan GHS ClassificationAustralian National Industrial ChemiceNIOSH (National Institute for OccuparNational Library of Medicine's PubMerNational Library of Medicine's PubMerNational Toxicology Program (NTP)New Zealand's Chemical ClassificationOrganisation for Economic Co-operatOrganisation for Economic Co-operatRTECS (Registry of Toxic Effects of Organisation for Economic Co-operat	ted average) lue ces for data used to complete sease Registry (ATSDR) y ChemView Database SA) cy) xEGL(s)) y Federal Insecticide, Fung y High Production Volume nation Database (IUCLID) als Notification and Assess tional Safety and Health) D Plus (NLM CIP) ed database (NLM PUBME on and Information Databas ion and Development Envi ion and Development High ion and Development Scree	STEL * pile the SDS gicide, and Rodentic Chemicals sment Scheme (NIC D) se (CCID) ronment, Health, an	Skin designation cide Act CNAS)

Disclaimer

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End of Safety Data Sheet



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: GB/T 16483-2008, GB/T 17519-2013

Product Name Bio-Plex Sample Diluent Revision date 17-May-2023 Revision Number 1.1

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

Product identifier		
Product Name	Bio-Plex Sample Diluent	
Catalogue Number(s)	10014641, 9704423, 9703895, 171305043, 10	022628, 10041561, 12005851
Other means of identification		
Pure substance/mixture	Mixture	
Details of the supplier of the safety	data sheet	
Corporate Headquarters 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. 1st and 2nd Floor, Lumpini 1 Building 239/2, Rajdamri Road, Lumpini, Pathumwan, Bangkok 10330 Thailand
Technical Service	+66 2 652 8313 ctsthailand@bio-rad.com	
Emergency telephone number		
24 Hour Emergency Phone Number	CHEMTREC Hong Kong: 800-968-793	
Recommended use of the chemical	and restrictions on use	
Recommended use	Laboratory chemicals	
SECTION 2: Hazards identi	fication	
	Emergency Overview No significant adverse health effects	
Appearance aqueous solution	Physical state Liquid	Odour Odourless
Classification of the substance or m	ixture	

Not classified

Label elements

Hazard statements Not classified

Physical and chemical hazards Not applicable.

Health hazards

Immediate Health Effects: Not applicable. Chronic effects: Not applicable.

Environmental hazards

Not applicable

Other hazards which do not result in classification

Contains animal source material (Cattle)

SECTION 3: Composition/information on ingredients

Substance

Not applicable.

<u>Mixture</u>

Not classified.

Chemical name	Weight-%	CAS No
Water	50 - 100	7732-18-5
Trade secret	0.3 - 0.99	-
HBR 1 Blocker	0.1 - 0.299	NO-CAS-18
Trade secret	0.1 - 0.299	-
Trade secret	0.1 - 0.299	-
Trade secret	0.1 - 0.299	-
Trade secret	0.1 - 0.299	-
Trade secret	0.01 - 0.099	-
Trade secret	0.01 - 0.099	-

SECTION 4: First aid measures

Description of necessary first aid measures

General advice	No hazards which require special first aid measures.
Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.
Skin contact	Wash skin with soap and water.
Ingestion	Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	No information available.
For emergency responders	No information available.
Note to doctors	Treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable Extinguishing Media

	surrounding environment.
Unsuitable extinguishing media	No information available.
Specific hazards arising from the chemical	No information available.
Special protective actions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures		
Personal precautions	See section 8 for more information.	
For emergency responders	Use personal protection recommended in Section 8.	
Environmental precautions	See Section 12 for additional Ecological Information.	
Methods and material for containment and cleaning up	Prevent further leakage or spillage if safe to do so. Pick up and transfer to properly labelled containers.	
Precautions to prevent secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.	

SECTION 7: Handling and storage		
Precautions for safe handling	Handle in accordance with good industrial hygiene and safety practice. See Section 8 for information on appropriate personal protective equipment.	
Conditions for safe storage, including any incompatibilities	Store according to product and label instructions.	
Incompatible materials	None known based on information supplied.	

SECTION 8: Exposure controls/personal protection

Occupational 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	China	ACGIH TLV
Trade secret -	Ceiling: 0.3 mg/m ³ Ceiling	Ceiling: 0.29 mg/m ³ Sodium azide
		Ceiling: 0.11 ppm Hydrazoic acid vapor

Note

See section 16 for terms and abbreviations

Biological occupational exposure limits

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

Monitoring and observation processes

No applicable information was found.

Engineering controls	Showers
	Eyewash stations

Ventilation systems.

Individual protection measures, such as personal protective equipment

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

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Information on basic physical and o			
Appearance	aqueous solution		
Colour	colourless		
Physical state	Liquid		
Odour	Odourless		
Odour threshold	No information available		
_			
Property	Values	Remarks • Method	
рН	7.4		
Melting point / freezing point	0°C		
Initial boiling point and boiling rang			
Flash point	No data available	None known	
Evaporation rate	No data available	None known	
Flammability	No data available	None known	
Flammability Limit in Air		None known	
Upper flammability or explosive	No data available		
limits			
Lower flammability or explosive	No data available		
limits			
Vapour pressure	No data available	None known	
Relative vapour density	No data available	None known	
Relative density	No data available	None known	
Water solubility	Miscible in water		
Solubility(ies)	No data available	None known	
Partition coefficient	No data available	None known	
Autoignition temperature	No data available	None known	
Decomposition temperature	No data available	None known	
Kinematic viscosity	No data available	None known	
Dynamic viscosity	No data available	None known	
-			
Additional information			
Explosive properties	Not applicable		
Oxidising properties	Not applicable		

SECTION 10: Stability and reactivity

<u>Stability</u>	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Sensitivity to mechanical impact Sensitivity to static discharge	None. None.
Conditions to avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

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) = 16 g/kg (Rat)	-	= 320 mg/m³(Rat)4 h
Trade secret	= 27 mg/kg (Rat)	= 20 mg/kg (Rabbit)	0.054 - 0.52 mg/L (Rat)4 h

Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
Specific target organ toxicity — single exposure	Based on available data, the classification criteria are not met.
	Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met.
single exposure Specific target organ toxicity —	

SECTION 12: Ecological information				
<u>Ecotoxicity</u>	The environmental impact of this product has not been fully investigated.			
Unknown aquatic toxicity	0.095 % of the mixture consists of component(s) of unknown hazards to the aquatic environment			
Chemical name	Algae/aquatic plants	Fish	Crustacea	
Trade secret	-	LC50: =0.8mg/L (96h, Oncorhynchus mykiss) LC50: =0.7mg/L (96h, Lepomis macrochirus) LC50: =5.46mg/L (96h,	-	

[]		r	Dim h ł		1
			Pimephales prom	ielas)	<u>I</u>
Persistence and degradability	No information	n available.			
Bioaccumulative potential	No information	n available.			
Chemica					coefficient
Trade	secret			-0.	698
<u>Mobility in soil</u>	No information	n available.			
SECTION 13: Disposal	consideration	S			
Waste chemicals		Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.			
Contaminated packaging	Do not reuse	empty contair	ners.		
SECTION 14: Transport	t information				
IMDG Transport in bulk according Annex II of MARPOL and th Code					
ΙΑΤΑ	Not regulated				
<u>China</u>	Not regulated	Not regulated			
Special precautions for user Please refer to the applicable dar	igerous goods regul	ations for add	litional information		
SECTION 15: Regulator	ry information				
Safety, health and environmen	tal regulations/legi	slation speci	fic for the substance	e or mixtu	re
National regulations					
Law of the People's Republic o	f China on Prevent	tion and Con	trol of Occupational	Diseases	í
Catalogue of occupational hazard Catalogue of occupational diseas				•	oplicable. oplicable.
Regulations on the Control over Inventory of hazardous chemicals		ous Chemica	lls	Not ap	oplicable.
Chemical nam			Inventory of I	nazardous	chemicals
Trade secret			Listed	l, Highly to	oxic
GB 18218-2009 Identification of r	najor hazard installa	ations for dang	gerous chemicals	Not ap	oplicable
List of hazardous chemicals ur	nder priority manag	gement		Not ap	oplicable
Regulations on Labour Protect Inventory of highly toxic goods	ion in Workplaces	Where Toxic	Substances Are Us		oplicable
Regulations for Environmental Chemicals List of toxic chemicals severely re	-	-		-	rt and Export of Toxic
Measures for the Environmental Management of New Chemical Substances IECSC - China Inventory of Existing Chemical Substances Contact supplier for inventory compliance status.					

International Regulations

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

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

SECTION 16: Other information				
Prepared By		Bio-Rad Laboratories, Environmental Health and Safety		
Revision date		17-May-2023		
Revision Note		Reformatted and update	ed existing inform	nation.
TWA Ceiling C	EXPOSURE CONT TWA (time-weighte Maximum limit valu Carcinogen	le	STEL *	STEL (Short Term Exposure Limit) Skin designation
Agency for Toxic S U.S. Environmenta European Food Sa EPA (Environment Acute Exposure Gu U.S. Environmenta U.S. Environmenta Food Research Jou Hazardous Substa International Unifor Japan GHS Classii Australian National NIOSH (National Ir National Library of National Library of National Library of National Toxicolog New Zealand's Che Organisation for Ed	Substances and Dise al Protection Agency offety Authority (EFSA al Protection Agency uideline Level(s) (AE al Protection Agency uideline Level(s) (AE al Protection Agency urnal nce Database rm Chemical Information fication I Industrial Chemical Industrial Chemical Medicine's PubMed y Program (NTP) emical Classification conomic Co-operation conomic Co-operation	y) EGL(s)) Federal Insecticide, Fun High Production Volume ation Database (IUCLID) Is Notification and Asses onal Safety and Health) Plus (NLM CIP) database (NLM PUBME and Information Databa on and Development Env	gicide, and Rode Chemicals sment Scheme (I D) se (CCID) ironment, Health n Production Volu	NICNAS) , and Safety Publications ume Chemicals Programme
<u>Disclaimer</u>				

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

End of Safety Data Sheet



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: GB/T 16483-2008, GB/T 17519-2013

Product Name Bio-Plex Standard Diluent Revision date 17-May-2023 Revision Number 1.1

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

Product identifier				
Product Name	Bio-Plex Standard Diluent			
Catalogue Number(s)	9703888, 9704424, 171305042, 171304080M, 10022368, 12005853			
Other means of identification				
Pure substance/mixture	Mixture			
Details of the supplier of the safety	data sheet			
Corporate Headquarters 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. 1st and 2nd Floor, Lumpini 1 Building 239/2, Rajdamri Road, Lumpini, Pathumwan, Bangkok 10330 Thailand		
Technical Service	+66 2 652 8313 ctsthailand@bio-rad.com			
Emergency telephone number				
24 Hour Emergency Phone Number	CHEMTREC Hong Kong: 800-968-793			
Recommended use of the chemical	and restrictions on use			
Recommended use	Laboratory chemicals			
SECTION 2: Hazards identi	fication			
	Emergency Overview No significant adverse health effects			
Appearance aqueous solution	Physical state Liquid	Odour Odourless		
Classification of the substance or m	ixture			

Not classified

Label elements

Hazard statements Not classified

Physical and chemical hazards Not applicable.

Health hazards

Immediate Health Effects: Not applicable. Chronic effects: Not applicable.

Environmental hazards

Not applicable

Other hazards which do not result in classification

Contains animal source material (Cattle)

SECTION 3: Composition/information on ingredients

Substance

Not applicable.

<u>Mixture</u>

Not classified.

Chemical name	Weight-%	CAS No
Water	50 - 100	7732-18-5
Trade secret	20 - 35	-
Trade secret	0.3 - 0.99	-
HBR 1 Blocker	0.1 - 0.299	NO-CAS-18
Trade secret	0.01 - 0.099	-
Trade secret	0.01 - 0.099	-
Trade secret	0.01 - 0.099	-
Trade secret	0.01 - 0.099	-

SECTION 4: First aid measures

Description of necessary first aid measures

General advice	No hazards which require special first aid measures.
Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.
Skin contact	Wash skin with soap and water.
Ingestion	Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	No information available.
For emergency responders	No information available.
Note to doctors	Treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable Extinguishing Media

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

Unsuitable extinguishing media	No information available.
Specific hazards arising from the chemical	No information available.
Special protective actions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	See section 8 for more information.	
For emergency responders	Use personal protection recommended in Section 8.	
Environmental precautions	See Section 12 for additional Ecological Information.	
Methods and material for containment and cleaning up	Prevent further leakage or spillage if safe to do so. Pick up and transfer to properly labelled containers.	
Precautions to prevent secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.	

SECTION 7: Handling and storage		
Precautions for safe handling	Handle in accordance with good industrial hygiene and safety practice. See Section 8 for information on appropriate personal protective equipment.	
Conditions for safe storage, including any incompatibilities	Store according to product and label instructions.	
Incompatible materials	None known based on information supplied.	

SECTION 8: Exposure controls/personal protection

Occupational 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	China	ACGIH TLV
Trade secret -	Ceiling: 0.3 mg/m ³ Ceiling	Ceiling: 0.29 mg/m ³ Sodium azide
		Ceiling: 0.11 ppm Hydrazoic acid vapor
Note See secti	on 16 for terms and abbreviations	

Biological occupational exposure limits

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

Monitoring and observation processes No applicable information was found.

Engineering controls

Showers Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

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

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

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties Appearance aqueous solution Colour colourless **Physical state** Liquid Odourless Odour **Odour threshold** No information available **Property** Values Remarks • Method pН 7.4 Melting point / freezing point No data available None known Initial boiling point and boiling range100 °C None known Flash point No data available None known **Evaporation rate** No data available 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 Vapour pressure No data available None known **Relative vapour density** No data available None known **Relative density** No data available None known Water solubility Miscible in water Solubility(ies) No data available None known Partition coefficient No data available None known Autoignition temperature None known No data available **Decomposition temperature** No data available None known Kinematic viscosity No data available None known **Dynamic viscosity** No data available None known Additional information **Explosive properties** Not applicable **Oxidising properties** Not applicable

SECTION 10: Stability and reactivity

Stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Sensitivity to mechanical impact Sensitivity to static discharge	None. None.
Conditions to avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

SECTION 12: Ecological information

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) = 16 g/kg (Rat)	-	= 320 mg/m³(Rat)4 h
Trade secret	= 27 mg/kg (Rat)	= 20 mg/kg (Rabbit)	0.054 - 0.52 mg/L (Rat)4 h

Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
Specific target organ toxicity — single exposure	Based on available data, the classification criteria are not met.
Specific target organ toxicity — repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.

Ecotoxicity_	The environmental impact	The environmental impact of this product has not been fully investigated.		
Unknown aquatic toxicity	0.018 % of the mixture co environment	0.018 % of the mixture consists of component(s) of unknown hazards to the aquatic environment		
Chemical name	Algae/aquatic plants	Fish	Crustacea	
Trade secret	-	LC50: =0.8mg/L (96h, Oncorhynchus mykiss) LC50: =0.7mg/L (96h, Lepomis macrochirus) LC50: =5.46mg/L (96h, Pimephales promelas)	-	

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Chemical name	Partition coefficient
Trade secret	-0.698

Mobility in soil No information available.

SECTION 13: Disposal considerations

Waste chemicals

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

Contaminated packaging

Do not reuse empty containers.

SECTION 14: Transport information

 IMDG
 Not regulated

 Transport in bulk according to
 No information available

 Annex II of MARPOL and the IBC
 Code

IATA Not regulated

China Not regulated

Special precautions for user

Please refer to the applicable dangerous goods regulations for additional information

SECTION 15: Regulatory information

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

National regulations

Law of the People's Republic of China on Prevention and Control of Occupational Diseases

Catalogue of occupational hazard factors:	Not applicable.
Catalogue of occupational diseases:	Not applicable.

Regulations on the Control over Safety of Hazardous Chemicals

Inventory of hazardous chemicals	Not applicable.	
Chemical name	Inventory of hazardous chemicals	
Trade secret	Listed, Highly toxic	
GB 18218-2009 Identification of major hazard installa	ations for dangerous chemicals Not applicable	
List of hazardous chemicals under priority managed	gement Not applicable	
Regulations on Labour Protection in Workplaces Where Toxic Substances Are UsedInventory of highly toxic goodsNot applicable		
Regulations for Environmental Management on the First Import of Chemicals and the Import and Export of Toxic		
Chemicals List of toxic chemicals severely restricted for import a	and export in China Not applicable	

Measures for the Environmental Management of New Chemical Substances IECSC - China Inventory of Existing Chemical Substances Contact supplier for inventory compliance status.

International Regulations

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

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

SECTION 16: Other information				
Prepared By	Bio-Rad Laboratories	Bio-Rad Laboratories, Environmental Health and Safety		
Revision date	17-May-2023			
Revision Note	Reformatted and upo	dated existing info	ormation.	
TWATWA (tCeilingMaximuCCarcinoKey literature referencesAgency for Toxic SubstanceU.S. Environmental ProtectEuropean Food Safety AuttEPA (Environmental ProtectAcute Exposure GuidelineU.S. Environmental ProtectAcute Exposure GuidelineU.S. Environmental ProtectU.S. Environmental ProtectFood Research JournalHazardous Substance DataInternational Uniform ChemJapan GHS ClassificationAustralian National IndustriNIOSH (National Institute fNational Library of MedicinNational Toxicology PrograNew Zealand's Chemical COrganisation for EconomicOrganisation for EconomicOrganisation for EconomicRTECS (Registry of Toxic	SURE CONTROLS/PERSONAL P ime-weighted average) um limit value ogen and sources for data used to c es and Disease Registry (ATSDR tion Agency ChemView Database hority (EFSA) ction Agency) Level(s) (AEGL(s)) tion Agency Federal Insecticide, F tion Agency High Production Volu abase nical Information Database (IUCL ial Chemicals Notification and Ass or Occupational Safety and Healt e's ChemID Plus (NLM CIP) e's PubMed database (NLM PUB	STEL * ompile the SDS ompile the SDS	e (NICNAS) alth, and Safety Publications /olume Chemicals Programme	
World Health Organization				

Disclaimer

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End of Safety Data Sheet



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: GB/T 16483-2008, GB/T 17519-2013

Product NameStreptavidin-PERevision date17-May-2023Revision Number1.1

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

Product identifier			
Product Name	Streptavidin-PE		
Catalogue Number(s)	171304501, 9704418, 9703887, 9703897		
Other means of identification			
Pure substance/mixture	Mixture		
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. 1st and 2nd Floor, Lumpini 1 Building 239/2, Rajdamri Road, Lumpini, Pathumwan, Bangkok 10330 Thailand	
Technical Service	+66 2 652 8313 ctsthailand@bio-rad.com		
Emergency telephone number			
24 Hour Emergency Phone Number	CHEMTREC Hong Kong: 800-968-793		
Recommended use of the chemical	and restrictions on use		
Recommended use	Laboratory chemicals		
SECTION 2: Hazards identi	fication		
	Emergency Overview No significant adverse health effects		
Appearance aqueous solution	Physical state Liquid	Odour Odourless	
Classification of the substance or m	ixture		
Not classified			

Label elements

Hazard statements Not classified

Physical and chemical hazards

Not applicable.

Health hazards

Immediate Health Effects: Not applicable. Chronic effects: Not applicable.

Environmental hazards

Not applicable

Other hazards which do not result in classification

Not applicable

SECTION 3: Composition/information on ingredients

Substance

Not applicable.

<u>Mixture</u>

Not classified.

Chemical name	Weight-%	CAS No
Water	50 - 100	7732-18-5
Trade secret	0.3 - 0.99	-
Trade secret	0.1 - 0.299	-
Trade secret	0.1 - 0.299	-
Trade secret	0.01 - 0.099	-
Avidin	0.01 - 0.099	9013-20-1

SECTION 4: First aid measures

Description of necessary first aid measures

General advice	No hazards which require special first aid measures.
Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.
Skin contact	Wash skin with soap and water.
Ingestion	Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	No information available.
For emergency responders	No information available.
Note to doctors	Treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable Extinguishing Media

	surrounding environment.
Unsuitable extinguishing media	No information available.
Specific hazards arising from the chemical	No information available.
Special protective actions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures			
Personal precautions	See section 8 for more information.		
For emergency responders	Use personal protection recommended in Section 8.		
Environmental precautions	See Section 12 for additional Ecological Information.		
Methods and material for containment and cleaning up	Prevent further leakage or spillage if safe to do so. Pick up and transfer to properly labelled containers.		
Precautions to prevent secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.		

SECTION 7: Handling and storage		
Precautions for safe handling	Handle in accordance with good industrial hygiene and safety practice. See Section 8 for information on appropriate personal protective equipment.	
Conditions for safe storage, including any incompatibilities	Store according to product and label instructions.	
Incompatible materials	None known based on information supplied.	

SECTION 8: Exposure controls/personal protection

Occupational 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	China	ACGIH TLV
Trade secret -	Ceiling: 0.3 mg/m ³ Ceiling	Ceiling: 0.29 mg/m ³ Sodium azide
		Ceiling: 0.11 ppm Hydrazoic acid vapor

Note

See section 16 for terms and abbreviations

Biological occupational exposure limits

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

Monitoring and observation processes

No applicable information was found.

Engineering controls	Showers
	Eyewash stations

Ventilation systems.

Individual protection measures, such as personal protective equipment

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

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

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	aqueous solution	
Colour	colourless	
Physical state	Liquid	
Odour	Odourless	
Odour threshold	No information available	
Property	Values	Remarks • Method
pH	<u>Values</u> 7.4	Nemarks • Methou
Melting point / freezing point	0°C	
Initial boiling point and boiling rang		
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive	No data available	
limits		
Lower flammability or explosive	No data available	
limits		
Vapour pressure	No data available	None known
Relative vapour density	No data available	None known
Relative density	No data available	None known
Water solubility	Miscible in water	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Additional information		
Explosive properties	Not applicable	
Oxidising properties	Not applicable	

SECTION 10: Stability and reactivity

<u>Stability</u>	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Sensitivity to mechanical impact Sensitivity to static discharge	t None. None.
Conditions to avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

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

Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
Reproductive toxicity Specific target organ toxicity — single exposure	Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met.
Specific target organ toxicity —	·

SECTION 12: Ecological information

Ecotoxicity

Unknown aquatic toxicity

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

Chemical name	Algae/aquatic plants	Fish	Crustacea
Trade secret	-	LC50: 5560 - 6080mg/L (96h,	EC50: =1000mg/L (48h,
		Lepomis macrochirus)	Daphnia magna)
		LC50: =12946mg/L (96h,	EC50: 340.7 - 469.2mg/L (48h,
		Lepomis macrochirus)	Daphnia magna)
		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)	

Persistence and degradability	No information available.
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Bioaccumulative potential	No information available.	

Mobility in soil

No information available.

SECTION 13: Disposal considerations

Waste chemicals	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

SECTION 14: Transport information

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

China Not regulated

Special precautions for user

Please refer to the applicable dangerous goods regulations for additional information

SECTION 15: Regulatory information

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

National regulations

Law of the People's Republic of China on Prevention and Control of Occupational Diseases

Catalogue of occupational hazard factors:	Not applicable.
Catalogue of occupational diseases:	Not applicable.

Regulations on the Control over Safety of Hazardous Chemicals

Inventory of hazardous chemicals Not applicable.	
Chemical name	Inventory of hazardous chemicals
Trade secret	Listed, Highly toxic
GB 18218-2009 Identification of major hazard installa	
Regulations on Labour Protection in Workplaces Inventory of highly toxic goods	Where Toxic Substances Are Used Not applicable

Regulations for Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals List of toxic chemicals severely restricted for import and export in China Not applicable

Measures for the Environmental Management of New Chemical Substances IECSC - China Inventory of Existing Chemical Substances Contact supplier for inventory compliance status.

International Regulations

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

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

SECTION 16: Other information			
Prepared By	Bio-Rad Laboratories, Environmental Health and Safety		
Revision date	17-May-2023		
Revision Note	Reformatted and updated existing information.		
Abbreviations and acronymsLegend Section 8: EXPOSURE CONTWATWA (time-weightCeilingMaximum limit valCCarcinogen	ted average) STEL STEL (Short Term Exposure Limit)		
Agency for Toxic Substances and Dis U.S. Environmental Protection Agence European Food Safety Authority (EFS EPA (Environmental Protection Agence Acute Exposure Guideline Level(s) (A U.S. Environmental Protection Agence U.S. Environmental Protection Agence Food Research Journal Hazardous Substance Database International Uniform Chemical Inform Japan GHS Classification Australian National Industrial Chemica NIOSH (National Institute for Occupat National Library of Medicine's ChemII National Library of Medicine's PubMe National Toxicology Program (NTP) New Zealand's Chemical Classificatio Organisation for Economic Co-operat	cy ChemView Database SA) (cy) AEGL(s)) cy Federal Insecticide, Fungicide, and Rodenticide Act cy Figh Production Volume Chemicals mation Database (IUCLID) cals Notification and Assessment Scheme (NICNAS) (tional Safety and Health) D Plus (NLM CIP) ed database (NLM PUBMED) on and Information Database (CCID) tion and Development Environment, Health, and Safety Publications tion and Development High Production Volume Chemicals Programme tion and Development Screening Information Data Set		

Disclaimer

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End of Safety Data Sheet