# **KIT SAFETY DATA SHEET**



PROTEUS PROTEIN A MIDI PURIFICATION KIT **Kit Product Name** 

Kit Catalogue Number(s) Not applicable

**Revision date** 21-Mar-2022

# Kit Contents

Catalogue Number(s)	Product Name
PROTEUS PROTEIN A BINDING BUFF	
	PROTEUS ELUTION BUFFER B1 - #10252
	PROTEUS ELUTION BUFFER B2 - #10253
	PROTEUS NEUTRALISATION BUFFER C - #10254

KITZ / BE Page 1/33



# SAFETY DATA SHEET

**Legal Entity / Contact Address** 

Bio-Rad Laboratories Pty Ltd

189 Bush Road

Albany Auckland New Zealand

Revision date 30-Nov-2021 **Revision Number** 2

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

**Product identifier** 

**Product Name** PROTEUS PROTEIN A BINDING BUFFER A - #10251

Other means of identification

10251 Safety data sheet number

Recommended use of the chemical and restrictions on use

Recommended use For research use only

No information available Uses advised against

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 **Endeavour House** Langford Business Park

Kidlington Oxford OX5 1GE United Kingdom

e-mail:

antibody\_safetydatasheets@bio-rad.com

**Technical Service** +64 9 415 2280 or 0508 805 500

sales.nz@bio-rad.com

Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC New Zealand: 64-98010034

# **SECTION 2: Hazards identification**

GHS Classification

Not classified

Label elements

**Hazard statements** 

Other hazards which do not result in classification

# SECTION 3: Composition/information on ingredients

Chemical name	CAS No	Weight-%
Sodium chloride	7647-14-5	10 - 20

Revision date 30-Nov-2021

Chemical name	CAS No	Weight-%		
Sodium azide	26628-22-8	0.1 - 0.299		
Non-hazardous ingredients	Proprietary	Balance		

# **SECTION 4: First aid measures**

Description of first aid measures

**General advice** No hazards which require special first aid measures.

Inhalation Remove to fresh air.

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

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

**Symptoms** No information available.

Indication of any immediate medical attention and special treatment needed

Note to doctors Treat symptomatically.

# SECTION 5: Firefighting measures

**Suitable 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

Specific hazards arising from the

chemical

None known.

Special protective actions for fire-fighters

Special protective equipment 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

See section 8 for more information. Personal precautions

Use personal protection recommended in Section 8. For emergency responders

**Environmental precautions** 

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

Revision date 30-Nov-2021

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

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

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

Precautions to prevent secondary hazards

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

# SECTION 7: Handling and storage

Precautions for safe handling

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

Conditions for safe storage, including any incompatibilities

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

Incompatible materials Metals.

# SECTION 8: Exposure controls/personal protection

#### **Control parameters**

#### **Exposure Limits**

Chemical name	New Zealand	ACGIH TLV	United Kingdom	Australia
Sodium azide	Ceiling: 0.11 ppm	Ceiling: 0.29 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	0.11 ppm Peak
26628-22-8	Ceiling: 0.29 mg/m <sup>3</sup>	Sodium azide	STEL: 0.3 mg/m <sup>3</sup>	0.3 mg/m³ Peak
		Ceiling: 0.11 ppm	Sk*	
		Hydrazoic acid vapor		

Biological occupational exposure

limits

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

Appropriate engineering controls

Engineering controls Showers

Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

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

Hand protection Wear suitable gloves.

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

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

**Environmental exposure controls** No information available.

#### SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state Liquid

Appearance Clear to semi-clear

**Colour** Varies

Odour No information available.
Odour threshold No information available

Property Values Remarks • Method

None known pН No data available None known Melting point / freezing point Boiling point / boiling range No data available None known Flash point No data available None known **Evaporation rate** No data available None known Flammability (solid, gas) No data available None known None known

Flammability Limit in Air
Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

Vapour pressureNo data availableNone knownVapour densityNo data availableNone knownRelative densityNo data availableNone known

Relative density
Water solubility
Soluble in water
No data available
No data available
No data available

Partition coefficientNo data availableNone knownAutoignition temperatureNo data availableNone knownDecomposition temperatureNo data availableNone knownKinematic viscosityNo data availableNone known

Kinematic viscosity
Dynamic viscosity
Explosive properties
Oxidising properties
No data available
Not applicable.
Not applicable.

Other information

Molecular weight

VOC Content (%)

Not applicable

Not applicable

# SECTION 10: Stability and reactivity

Reactivity

**Reactivity** No information available.

**Chemical stability** 

**Stability** Stable under normal conditions.

**Explosion data** 

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Possibility of hazardous reactions

**Possibility of hazardous reactions** 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

None known

None known

toxic gases.

Revision date 30-Nov-2021

Conditions to avoid

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

Incompatible materials

Incompatible materials Metals.

Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

# **SECTION 11: Toxicological information**

#### **Acute toxicity**

# 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** 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)** 13,767.9268 mg/kg

Oral LD50 No information available
Dermal LD50 No information available
Inhalation LC50 No information available
Inhalation LC50 No information available

**Component Information** 

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium chloride	= 3 g/kg (Rat)	> 10000 mg/kg (Rabbit)	> 42 mg/L (Rat)1 h
Sodium azide	= 27 mg/kg (Rat)	= 20 mg/kg (Rabbit)	0.054 - 0.52 mg/L (Rat) 4 h

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

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

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

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

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

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

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

Revision date 30-Nov-2021

\_\_\_\_\_

**Respiratory irritation**Narcotic effects
Based on available data, the classification criteria are not met.
Based on available data, the classification criteria are not met.

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

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

# **SECTION 12: Ecological information**

**Ecotoxicity** 

**Ecotoxicity** 

**Aquatic 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
Sodium chloride	-	LC50: 4747 - 7824mg/L (96h, Oncorhynchus mykiss) LC50: 5560 - 6080mg/L (96h, Lepomis macrochirus) LC50: 6020 - 7070mg/L (96h, Pimephales promelas) LC50: 6420 - 6700mg/L (96h, Pimephales promelas) LC50: =12946mg/L (96h, Lepomis macrochirus) LC50: =7050mg/L (96h, Pimephales promelas)	EC50: 340.7 - 469.2mg/L (48h, Daphnia magna) EC50: =1000mg/L (48h, Daphnia magna)
Sodium azide	-	LC50: =0.7mg/L (96h, Lepomis macrochirus) LC50: =0.8mg/L (96h, Oncorhynchus mykiss) LC50: =5.46mg/L (96h, Pimephales promelas)	-

#### **Terrestrial ecotoxicty**

Chemical name	Earthworm	Avian	Honeybees
Sodium chloride	Acute Toxicity: LC50 0.1 - 1	-	-
	mg/cm2 (Eisenia foetida, 48 h		
	filter paper)		

Persistence and degradability No information available.

Bioaccumulative potential

**Bioaccumulation** No information available.

Mobility in soil

Other adverse effects

No information available.

# **SECTION 13: Disposal considerations**

Waste treatment methods

Contaminated packaging For packages that have been in direct contact with hazardous substances, the person must

ensure that the package is rendered incapable of containing any substance. It must be disposed of in a manner that is consistent with the requirements for disposal of the substance that it contained, taking into account the material the package is manufactured from

Revision date 30-Nov-2021

Packages may only be reused or recycled if the package has been treated to remove any residual contents of the hazardous substance (class 1, 2, 3, 4, or 5); or the contents of the residue in the package are below the threshold for the substance to be classified as hazardous (class 6, 8, or 9 substance)

# **SECTION 14: Transport information**

IATA Not regulated

IMDG Not regulated

Transport in bulk according to Annex II of MARPOL and the IBC Code

No information available

# SECTION 15: Regulatory information

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

#### National regulations

#### **New Zealand**

Chemical name	New Zealand HSNO Chemical Classification
Sodium chloride - 7647-14-5	6.1E (All),6.1E (O),6.4A
Sodium azide - 26628-22-8	6.1B (All),6.1B (O),9.1B (All),9.1B (F),9.1B (C),9.1B (A),9.3B
	6.1B (All),6.1B (O),9.1A (All),9.1A (F),9.1A (C),9.1A (A),9.3A
	6.1B (All),6.1B (O),9.1C (All),9.1C (F),9.1C (C),9.1C (A),9.3C

#### **National regulations**

See Section 8 for any applicable tolerable exposure limits and environmental exposure limits

# Certified handlers, tracking and controlled substance license requirements

Certified handlers are required for some substances. This includes for substances requiring a controlled substance license, including Class 1 explosives, vertebrate toxic agents (9.3A, B, C), and certain fumigants. Class 6.1A and 6.1B substances such as pesticides also require Certified handlers. Please check the Health and Safety at Work Act 2015 for further information

Tracking is required for some highly hazardous substances. These substances need to be under the control of an appropriately trained person or appropriately secured. Please check the Health and Safety at Work Act 2015 for further information

Controlled substance licenses are required to possess certain class 1 (explosive) and class 6 (vertebrate toxic agents or fumigants) substances. See Part 7 of the Health and Safety at Work Regulation 2017 for more information

EPA New Zealand HSNO approval code or group standard

Not applicable

#### **International Inventories**

Contact supplier for inventory compliance status

#### Legend:

#### **International Regulations**

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

The Stockholm Convention on Persistent Organic Pollutants Not applicable

Revision date 30-Nov-2021

The Rotterdam Convention Not applicable

# **SECTION 16: Other information**

Prepared By Bio-Rad Laboratories, Environmental Health and Safety

Revision date 30-Nov-2021

**Revision Note** Significant changes throughout SDS. Review all sections.

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

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Ceiling Maximum limit value \* Skin designation

C Carcinogen

#### 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 Screening Information Data Set

RTECS (Registry of Toxic Effects of Chemical Substances)

World Health Organization

#### **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** 

Bio-Rad Laboratories Pty Ltd

189 Bush Road

Albany Auckland

New Zealand

Revision date 14-Feb-2022 **Revision Number** 2

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

**Product identifier** 

**Product Name** PROTEUS ELUTION BUFFER B1 - #10252

Other means of identification

10252 Safety data sheet number

Recommended use of the chemical and restrictions on use

Recommended use For research use only

No information available Uses advised against

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 **Endeavour House** 

Langford Business Park Kidlington

Oxford OX5 1GE United Kingdom

e-mail:

antibody\_safetydatasheets@bio-rad.com

**Technical Service** +64 9 415 2280 or 0508 805 500

sales.nz@bio-rad.com

Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC New Zealand: 64-98010034

# **SECTION 2: Hazards identification**

GHS Classification

Not classified

Label elements

**Hazard statements** 

Other hazards which do not result in classification

# SECTION 3: Composition/information on ingredients

Chemical name	CAS No	Weight-%
Non-hazardous ingredients	Proprietary	Balance

# **SECTION 4: First aid measures**

Description of first aid measures

**General advice** No hazards which require special first aid measures.

**Inhalation** Remove to fresh air.

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

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

**Symptoms** No information available.

Indication of any immediate medical attention and special treatment needed

**Note to doctors**Treat symptomatically.

# **SECTION 5: Firefighting measures**

**Suitable Extinguishing Media** 

surrounding environment.

Unsuitable extinguishing media No information available.

Specific hazards arising from the chemical

Specific hazards arising from the

chemical

None known.

Special protective actions for fire-fighters

Special protective equipment 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** 

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

Methods and material for containment and cleaning up

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

Revision date 14-Feb-2022

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

Precautions to prevent secondary hazards

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

# **SECTION 7: Handling and storage**

Precautions for safe handling

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

Conditions for safe storage, including any incompatibilities

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

Incompatible materials None known based on information supplied.

# SECTION 8: Exposure controls/personal protection

Control parameters

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

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.

Appropriate engineering controls

**Engineering controls** Showers

**Evewash stations** Ventilation systems.

Individual protection measures, such as personal protective equipment

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

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.

**Environmental exposure controls** No information available.

# SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

**Physical state** Liquid

Clear to semi-clear **Appearance** 

None known

None known

None known

None known

None known

None known

**Colour** Varies

Odour No information available.
Odour threshold No information available

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

pH = 5.5

Melting point / freezing point No data available None known Boiling point / boiling range No data available None known Flash point No data available None known **Evaporation rate** No data available None known Flammability (solid, gas) 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 pressureNo data availableNone knownVapour densityNo data availableNone knownRelative densityNo data availableNone known

Water solubility
Soluble in water
No data available
No data available
Partition coefficient
No data available

Autoignition temperature

Decomposition temperature

Kinematic viscosity

No data available

No data available

No data available

Dynamic viscosity

Explosive properties

Oxidising properties

No data available
Not applicable.

Not applicable.

Other information

Molecular weight
VOC Content (%)

Not applicable
Not applicable

# SECTION 10: Stability and reactivity

Reactivity

**Reactivity** No information available.

Chemical stability

**Stability** Stable under normal conditions.

**Explosion data** 

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Possibility of hazardous reactions

Possibility of hazardous reactions 
None under normal processing.

Conditions to avoid

Conditions to avoid None known based on information supplied.

Incompatible materials

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

**Hazardous decomposition products** 

\_\_\_\_\_

Hazardous decomposition products None known based on information supplied.

# SECTION 11: Toxicological information

#### **Acute toxicity**

#### 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** No information available.

**Acute toxicity** 

**Numerical measures of toxicity** 

Oral LD50 No information available
Dermal LD50 No information available
Inhalation LC50 No information available
Inhalation LC50 No information available

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

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

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

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

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

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

STOT - single exposure Respiratory irritation Narcotic effects 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.

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

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

# SECTION 12: Ecological information

**Ecotoxicity** 

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

Aquatic ecotoxicity

**Unknown aquatic toxicity** 0 % of the mixture consists of component(s) of unknown hazards to the aquatic

environment.

**Terrestrial ecotoxicty** There is no data for this product.

Persistence and degradability No information available.

Bioaccumulative potential

Bioaccumulation There is no data for this product.

Mobility in soil

Other adverse effects

No information available.

# **SECTION 13: Disposal considerations**

Waste treatment methods

Contaminated packaging

For packages that have been in direct contact with hazardous substances, the person must ensure that the package is rendered incapable of containing any substance. It must be disposed of in a manner that is consistent with the requirements for disposal of the substance that it contained, taking into account the material the package is manufactured from

Packages may only be reused or recycled if the package has been treated to remove any residual contents of the hazardous substance (class 1, 2, 3, 4, or 5); or the contents of the residue in the package are below the threshold for the substance to be classified as hazardous (class 6, 8, or 9 substance)

# **SECTION 14: Transport information**

Not regulated IATA

IMDG Not regulated

Transport in bulk according to Annex II of MARPOL and the IBC Code

No information available

# **SECTION 15: Regulatory information**

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

**National regulations** 

**New Zealand** 

**National regulations** See Section 8 for any applicable tolerable exposure limits and environmental exposure

Certified handlers, tracking and controlled substance license

requirements

Certified handlers are required for some substances. This includes for substances requiring a controlled substance license, including Class 1 explosives, vertebrate toxic agents (9.3A, B, C), and certain fumigants. Class 6.1A and 6.1B substances such as pesticides also require Certified handlers. Please check the Health and Safety at Work Act 2015 for further information

Tracking is required for some highly hazardous substances. These substances need to be

\_\_\_\_\_

under the control of an appropriately trained person or appropriately secured. Please check the Health and Safety at Work Act 2015 for further information

Controlled substance licenses are required to possess certain class 1 (explosive) and class 6 (vertebrate toxic agents or fumigants) substances. See Part 7 of the Health and Safety at Work Regulation 2017 for more information

EPA New Zealand HSNO approval code or group standard

Not applicable

#### **International Inventories**

Contact supplier for inventory compliance status

Legend:

#### 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 14-Feb-2022

**Revision Note** Significant changes throughout SDS. Review all sections.

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

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Ceiling Maximum limit value \* Skin designation

C Carcinogen

#### 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 Screening Information Data Set

RTECS (Registry of Toxic Effects of Chemical Substances)

World Health Organization

#### **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** 

Bio-Rad Laboratories Pty Ltd

189 Bush Road

Albany Auckland New Zealand

Revision date 29-Nov-2021 **Revision Number** 2

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

**Product identifier** 

**Product Name** PROTEUS ELUTION BUFFER B2 - #10253

Other means of identification

10253 Safety data sheet number

Recommended use of the chemical and restrictions on use

Recommended use For research use only

No information available Uses advised against

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 **Endeavour House** 

Langford Business Park Kidlington

Oxford OX5 1GE United Kingdom

e-mail:

antibody\_safetydatasheets@bio-rad.com

**Technical Service** +64 9 415 2280 or 0508 805 500

sales.nz@bio-rad.com

Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC New Zealand: 64-98010034

# **SECTION 2: Hazards identification**

**GHS Classification** 

Not classified

Label elements

**Hazard statements** 

Other hazards which do not result in classification

# SECTION 3: Composition/information on ingredients

Chemical name	CAS No	Weight-%
Sodium azide	26628-22-8	0.1 - 0.299

Revision date 29-Nov-2021

Non-hazardous ingredients Proprietary Balance

# SECTION 4: First aid measures

**Description of first aid measures** 

General advice No hazards which require special first aid measures.

Inhalation Remove to fresh air.

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

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

**Symptoms** No information available.

Indication of any immediate medical attention and special treatment needed

Note to doctors Treat symptomatically.

# SECTION 5: Firefighting measures

**Suitable 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

Specific hazards arising from the

chemical

None known.

Special protective actions for fire-fighters

Special protective equipment 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** 

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

Methods and material for containment and cleaning up

Revision date 29-Nov-2021

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

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

Precautions to prevent secondary hazards

Prevention of 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. Advice on safe handling

Conditions for safe storage, including any incompatibilities

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

Incompatible materials Metals.

# SECTION 8: Exposure controls/personal protection

#### Control parameters

#### **Exposure Limits**

Chemical name	New Zealand	ACGIH TLV	United Kingdom	Australia
Sodium azide	Ceiling: 0.11 ppm	Ceiling: 0.29 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	0.11 ppm Peak
26628-22-8	Ceiling: 0.29 mg/m <sup>3</sup>	Sodium azide	STEL: 0.3 mg/m <sup>3</sup>	0.3 mg/m³ Peak
		Ceiling: 0.11 ppm	Sk*	_
		Hydrazoic acid vapor		

Biological occupational exposure

limits

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

#### Appropriate engineering controls

**Engineering controls** Showers

> Eyewash stations Ventilation systems.

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

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

Hand protection Wear suitable gloves.

Skin and body protection Wear suitable protective clothing.

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.

No information available. **Environmental exposure controls** 

# SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state Liquid

Appearance Clear to semi-clear

**Colour** Varies

Odour No information available.
Odour threshold No information available

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

Hq None known Melting point / freezing point No data available None known Boiling point / boiling range No data available None known No data available Flash point None known **Evaporation rate** No data available None known Flammability (solid, gas) No data available None known None known

Flammability Limit in Air
Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

Vapour pressureNo data availableNone knownVapour densityNo data availableNone knownRelative densityNo data availableNone known

Water solubility Soluble in water

Solubility(ies)No data availableNone knownPartition coefficientNo data availableNone knownAutoignition temperatureNo data availableNone knownDecomposition temperatureNone known

Kinematic viscosity

No data available

None known

No data available

None known

No data available

None known

**Explosive properties**Not applicable. **Oxidising properties**Not applicable.

Other information

Molecular weight Not applicable VOC Content (%) Not applicable

# SECTION 10: Stability and reactivity

Reactivity

**Reactivity** No information available.

**Chemical stability** 

**Stability** Stable under normal conditions.

**Explosion data** 

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Possibility of hazardous reactions

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

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

toxic gases.

Conditions to avoid

Revision date 29-Nov-2021

\_\_\_\_\_

Conditions to avoid None known based on information supplied.

Incompatible materials

Incompatible materials Metals.

Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

# **SECTION 11: Toxicological information**

#### **Acute toxicity**

#### 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 No information available.

**Acute toxicity** 

**Numerical measures of toxicity** 

Oral LD50 No information available
Dermal LD50 No information available
Inhalation LC50 No information available
Inhalation LC50 No information available

**Component Information** 

L	Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
	Sodium azide	= 27 mg/kg (Rat)	= 20 mg/kg (Rabbit)	0.054 - 0.52 mg/L (Rat) 4 h

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

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

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

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

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

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

STOT - single exposure
Respiratory irritation
Narcotic effects

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.

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

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

# **SECTION 12: Ecological information**

**Ecotoxicity** 

**Ecotoxicity** 

**Aquatic 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
Sodium azide	-	LC50: =0.7mg/L (96h, Lepomis	-
		macrochirus)	
		LC50: =0.8mg/L (96h,	
		Oncorhynchus mykiss)	
		LC50: =5.46mg/L (96h, Pimephales	
		promelas)	

**Terrestrial ecotoxicty** There is no data for this product.

Persistence and degradability No information available.

Bioaccumulative potential

**Bioaccumulation** No information available.

Mobility in soil

Other adverse effects

No information available.

# **SECTION 13: Disposal considerations**

#### Waste treatment methods

#### Contaminated packaging

For packages that have been in direct contact with hazardous substances, the person must ensure that the package is rendered incapable of containing any substance. It must be disposed of in a manner that is consistent with the requirements for disposal of the substance that it contained, taking into account the material the package is manufactured from

Packages may only be reused or recycled if the package has been treated to remove any residual contents of the hazardous substance (class 1, 2, 3, 4, or 5); or the contents of the residue in the package are below the threshold for the substance to be classified as hazardous (class 6, 8, or 9 substance)

# **SECTION 14: Transport information**

IMDG Not regulated

Not regulated

Transport in bulk according to Annex II of MARPOL and the IBC Code

No information available

# **SECTION 15: Regulatory information**

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

#### National regulations

#### **New Zealand**

Chemical name	New Zealand HSNO Chemical Classification
Sodium azide - 26628-22-8	6.1B (All),6.1B (O),9.1B (All),9.1B (F),9.1B (C),9.1B (A),9.3B
	6.1B (All),6.1B (O),9.1A (All),9.1A (F),9.1A (C),9.1A (A),9.3A
	6.1B (All),6.1B (O),9.1C (All),9.1C (F),9.1C (C),9.1C (A),9.3C

National regulations See Section 8 for any applicable tolerable exposure limits and environmental exposure

limits

Certified handlers, tracking and controlled substance license requirements

Certified handlers are required for some substances. This includes for substances requiring a controlled substance license, including Class 1 explosives, vertebrate toxic agents (9.3A, B, C), and certain fumigants. Class 6.1A and 6.1B substances such as pesticides also require Certified handlers. Please check the Health and Safety at Work Act 2015 for further information

Tracking is required for some highly hazardous substances. These substances need to be under the control of an appropriately trained person or appropriately secured. Please check the Health and Safety at Work Act 2015 for further information

Controlled substance licenses are required to possess certain class 1 (explosive) and class 6 (vertebrate toxic agents or fumigants) substances. See Part 7 of the Health and Safety at Work Regulation 2017 for more information

**EPA New Zealand HSNO approval** 

Not applicable

code or group standard

#### **International Inventories**

Contact supplier for inventory compliance status

Legend:

#### 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 29-Nov-2021

**Revision Note** Significant changes throughout SDS. Review all sections.

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

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Ceiling Maximum limit value \* Skin designation

C Carcinogen

#### 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 Screening Information Data Set

RTECS (Registry of Toxic Effects of Chemical Substances)

World Health Organization

#### **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** 

Bio-Rad Laboratories Pty Ltd

189 Bush Road

Albany Auckland

New Zealand

Revision date 22-Nov-2021 Revision Number 1

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

**Product identifier** 

**Product Name** PROTEUS NEUTRALISATION BUFFER C - #10254

Other means of identification

10254 Safety data sheet number

Recommended use of the chemical and restrictions on use

Recommended use For research use only

No information available Uses advised against

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 **Endeavour House** Langford Business Park

Kidlington Oxford OX5 1GE United Kingdom

e-mail:

antibody\_safetydatasheets@bio-rad.com

**Technical Service** +64 9 415 2280 or 0508 805 500

sales.nz@bio-rad.com

Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC New Zealand: 64-98010034

# **SECTION 2: Hazards identification**

**GHS Classification** 

Not classified

Label elements

**Hazard statements** 

Other hazards which do not result in classification

# SECTION 3: Composition/information on ingredients

ZGHS / BE Page 26 / 33

Revision date 22-Nov-2021

Chemical name	CAS No	Weight-%
Sodium azide	26628-22-8	0.1 - 0.299
Non-hazardous ingredients	Proprietary	Balance

# **SECTION 4: First aid measures**

Description of first aid measures

**General advice** No hazards which require special first aid measures.

**Inhalation** Remove to fresh air.

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

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

**Symptoms** No information available.

Indication of any immediate medical attention and special treatment needed

Note to doctors Treat symptomatically.

# **SECTION 5: Firefighting measures**

**Suitable Extinguishing Media** 

surrounding environment.

Unsuitable extinguishing media No information available.

Specific hazards arising from the chemical

Specific hazards arising from the

chemical

None known.

Special protective actions for fire-fighters

Special protective equipment 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** 

Revision date 22-Nov-2021

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

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

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

Precautions to prevent secondary hazards

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

# SECTION 7: Handling and storage

Precautions for safe handling

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

Conditions for safe storage, including any incompatibilities

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

Incompatible materials Metals.

# SECTION 8: Exposure controls/personal protection

#### **Control parameters**

#### **Exposure Limits**

Chemical name	New Zealand	ACGIH TLV	United Kingdom	Australia
Sodium azide	Ceiling: 0.11 ppm	Ceiling: 0.29 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	0.11 ppm Peak
26628-22-8	Ceiling: 0.29 mg/m <sup>3</sup>	Sodium azide	STEL: 0.3 mg/m <sup>3</sup>	0.3 mg/m³ Peak
		Ceiling: 0.11 ppm	Sk*	-
		Hydrazoic acid vapor		

**Biological occupational exposure** 

limits

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

Appropriate engineering controls

Engineering controls Showers

Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

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

Hand protection Wear suitable gloves.

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

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

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

**Environmental exposure controls** No information available.

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

Information on basic physical and chemical properties

Physical state Liquid

**Appearance** Clear to semi-clear

Colour Varies

Odour No information available. **Odour threshold** No information available

**Property** Remarks • Method Values

None known pН Melting point / freezing point No data available None known Boiling point / boiling range No data available None known Flash point No data available None known **Evaporation rate** No data available None known Flammability (solid, gas) 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 No data available Vapour density None known Relative density No data available None known

Soluble in water Water solubility Solubility(ies) No data available

None known Partition coefficient No data available None known **Autoignition temperature** No data available None known **Decomposition temperature** None known Kinematic viscosity No data available None known

**Dynamic viscosity** No data available **Explosive properties** Not applicable. Not applicable.

**Oxidising properties** 

Other information

Molecular weight Not applicable **VOC Content (%)** Not applicable

# SECTION 10: Stability and reactivity

Reactivity

Reactivity No information available.

**Chemical stability** 

Stable under normal conditions. Stability

**Explosion data** 

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

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

None known

toxic gases.

\_\_\_\_\_

Conditions to avoid

Conditions to avoid None known based on information supplied.

Incompatible materials

Incompatible materials Metals.

Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

# SECTION 11: Toxicological information

#### **Acute toxicity**

#### 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** 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)** 56,894.8891 mg/kg

Oral LD50 No information available
Dermal LD50 No information available
Inhalation LC50 No information available

**Component Information** 

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium azide	= 27 mg/kg (Rat)	= 20 mg/kg (Rabbit)	0.054 - 0.52 mg/L (Rat) 4 h

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

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

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

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

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

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

STOT - single exposure
Respiratory irritation
Narcotic effects

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.

Revision date 22-Nov-2021

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

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

# **SECTION 12: Ecological information**

**Ecotoxicity** 

**Ecotoxicity** 

**Aquatic 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
Sodium azide	-	LC50: =0.7mg/L (96h, Lepomis	-
		macrochirus)	
		LC50: =0.8mg/L (96h,	
		Oncorhynchus mykiss)	
		LC50: =5.46mg/L (96h, Pimephales	
		promelas)	

**Terrestrial ecotoxicty** There is no data for this product.

Persistence and degradability No information available.

**Bioaccumulative potential** 

**Bioaccumulation** No information available.

Mobility in soil

Other adverse effects

No information available.

# SECTION 13: Disposal considerations

#### Waste treatment methods

Contaminated packaging

IMDG

For packages that have been in direct contact with hazardous substances, the person must ensure that the package is rendered incapable of containing any substance. It must be disposed of in a manner that is consistent with the requirements for disposal of the substance that it contained, taking into account the material the package is manufactured from

Packages may only be reused or recycled if the package has been treated to remove any residual contents of the hazardous substance (class 1, 2, 3, 4, or 5); or the contents of the residue in the package are below the threshold for the substance to be classified as hazardous (class 6, 8, or 9 substance)

# **SECTION 14: Transport information**

IATA Not regulated

Transport in bulk according to Annex II of MARPOL and the IBC Code

Not regulated

\_\_\_\_\_

No information available

# SECTION 15: Regulatory information

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

#### National regulations

#### **New Zealand**

Chemical name Ne	ew Zealand HSNO Chemical Classification
6.1B (All),6	6.1B (O),9.1B (All),9.1B (F),9.1B (C),9.1B (A),9.3B 6.1B (O),9.1A (All),9.1A (F),9.1A (C),9.1A (A),9.3A 6.1B (O),9.1C (All),9.1C (F),9.1C (C),9.1C (A),9.3C

**National regulations** 

See Section 8 for any applicable tolerable exposure limits and environmental exposure

limits

Certified handlers, tracking and controlled substance license requirements

Certified handlers are required for some substances. This includes for substances requiring a controlled substance license, including Class 1 explosives, vertebrate toxic agents (9.3A, B, C), and certain fumigants. Class 6.1A and 6.1B substances such as pesticides also require Certified handlers. Please check the Health and Safety at Work Act 2015 for further information

Tracking is required for some highly hazardous substances. These substances need to be under the control of an appropriately trained person or appropriately secured. Please check the Health and Safety at Work Act 2015 for further information

Controlled substance licenses are required to possess certain class 1 (explosive) and class 6 (vertebrate toxic agents or fumigants) substances. See Part 7 of the Health and Safety at Work Regulation 2017 for more information

EPA New Zealand HSNO approval code or group standard

Not applicable

# International Inventories

Contact supplier for inventory compliance status

Legend:

#### **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 22-Nov-2021

Revision Note Significant changes throughout SDS. Review all sections.

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

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Ceiling Maximum limit value \* Skin designation

C Carcinogen

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 Screening Information Data Set

RTECS (Registry of Toxic Effects of Chemical Substances)

World Health Organization

#### **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**