KIT SAFETY DATA SHEET



Kit Product Name Autoimmune EIA Anti-Sm/RNP Test

Kit Catalogue Number(s) 96SR

Revision date 02-Apr-2024

Kit Contents

Catalogue Number(s)	Product Name
200SR, 210SR	Anti-Sm/RNP Pos. Control/Anti-SM/RNP Calib.
220NC, 220ND	Negative Control
220HSP, 220HAN, 220HDS, 220HCE, 220HSS	Conjugate
230AW	Wash Concentrate
230AD	Sample Diluent
220TM	Substrate
220SM	Stop Solution

KITC / BE Page 1/54



SAFETY DATA SHEET

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

Product Name Anti-Sm/RNP Pos. Control/Anti-SM/RNP Calib.

Revision date 02-Apr-2024 Revision Number 1.1

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

Product identifier

Product Name Anti-Sm/RNP Pos. Control/Anti-SM/RNP Calib.

Catalogue Number(s) 200SR, 210SR

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, Diagnostic Group

4000 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 In-vitro laboratory reagent or component

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

Hazardous to the Aquatic Environment - Acute Hazard Category 3

Label elements

Hazard statements

Harmful to aquatic life

Precautionary statements

Prevention

Avoid release to the environment

Product Name Anti-Sm/RNP Pos. Control/Anti-SM/RNP

Calib.

Revision date 02-Apr-2024

Response

Disposal

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

Physical and chemical hazards

Not applicable.

Health hazards

Immediate Health Effects: Not applicable.

Chronic effects: Not applicable.

Environmental hazards

This material is a water pollutant. Keep out of drains, sewers, ditches and waterways. Minimise use of water to prevent environmental contamination

Other hazards which do not result in classification

Contains animal source material (Goat)

Contains human source material and / or potentially infectious components.

SECTION 3: Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical name	Weight-%	CAS No
1,2,3-Propanetriol	50 - 100	56-81-5

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 Contains human source material and / or potentially infectious components. 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 Call a doctor. Contains human source material and / or potentially infectious components.

Most important symptoms and effects, both acute and delayed

No information available.

For emergency responders No information available.

Note to doctors Contains human source material and / or potentially infectious components.

SECTION 5: Firefighting measures

Extinguishing media

Product Name Anti-Sm/RNP Pos. Control/Anti-SM/RNP

Calib.

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.

Revision date 02-Apr-2024

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

Do not allow into any sewer, on the ground or into any body of water. Clean contaminated

surface thoroughly. Use:. Disinfectant.

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. Follow universal

and standard precautions for handling potentially infectious materials. 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. **Product Name** Anti-Sm/RNP Pos. Control/Anti-SM/RNP

Revision date 02-Apr-2024 Calib.

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.

Wear suitable gloves. Hand protection

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 Follow universal and standard precautions for handling potentially infectious materials.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

aqueous solution **Appearance**

Colour white **Physical state** Liquid Odour Odourless

Odour threshold No information available

Property Remarks • Method Values

Hq None known None known

Melting point / freezing point No data available

Initial boiling point and boiling range> 100 °C

> 160 °C Flash point

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

No data available None known Vapour pressure 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

No data available None known **Decomposition temperature** Kinematic viscosity No data available None known **Dynamic viscosity** No data available None known

Additional information

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

SECTION 10: Stability and reactivity

Stable under normal conditions. Stability

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

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

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

Incompatible materials Metals.

<u>Hazardous decomposition products</u> None known based on information supplied.

SECTION 11: Toxicological information

Acute toxicity

Numerical measures of toxicity

No information available

Component Information

Component information				
Chemical name	Oral LD50	Dermal LD50	Inhalation LC50	
1,2,3-Propanetriol	= 12600 mg/kg (Rat)	> 10 g/kg (Rabbit)	> 2.75 mg/L (Rat) 4 h	

Skin corrosion/irritation Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. Serious eye damage/eye irritation 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 — Based on available data, the classification criteria are not met. single exposure Specific target organ toxicity — Based on available data, the classification criteria are not met. repeated exposure

SECTION 12: Ecological information

Ecotoxicity Harmful to aquatic life.

Unknown aquatic toxicity 0.001 % of the mixture consists of component(s) of unknown hazards to the aquatic

Kidney. Respiratory system. Eyes. Skin.

environment

Chemical name	Algae/aquatic plants	Fish	Crustacea
1,2,3-Propanetriol	-	LC50: 51 - 57mL/L (96h,	-
		Oncorhynchus mykiss)	

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

<u>Persistence and degradability</u> No information available.

Bioaccumulative potential There is no data for this product.

Component Information

Target organ effects

Aspiration hazard

Chemical name	Partition coefficient
1,2,3-Propanetriol	-1.75

Product Name Anti-Sm/RNP Pos. Control/Anti-SM/RNP

Calib.

Mobility in soil No information available.

SECTION 13: Disposal considerations

Waste chemicals 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

Revision date 02-Apr-2024

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

<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:

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 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 SubstancesContact 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

Calib

SECTION 16: Other information

Prepared By Bio-Rad Laboratories, Environmental Health and Safety

Revision date 02-Apr-2024

Revision Note Reformatted and updated existing information.

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

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

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

Product Name Negative Control Revision date 02-Apr-2024 Revision Number 1.1

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

Product identifier

Product Name Negative Control

Catalogue Number(s) 220NC, 220ND

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, Diagnostic Group

4000 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 In-vitro laboratory reagent or component

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

Hazardous to the Aquatic Environment - Acute Hazard Category 3

Label elements

Hazard statements

Harmful to aquatic life

Precautionary statements

Prevention

Avoid release to the environment

Response

Disposal

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

Physical and chemical hazards

Not applicable.

Health hazards

Immediate Health Effects: Not applicable.

Chronic effects: Not applicable.

Environmental hazards

This material is a water pollutant. Keep out of drains, sewers, ditches and waterways. Minimise use of water to prevent environmental contamination

Other hazards which do not result in classification

Contains animal source material (Goat)

Contains human source material and / or potentially infectious components.

SECTION 3: Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical name	Weight-%	CAS No
1,2,3-Propanetriol	20 - 35	56-81-5

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 Contains human source material and / or potentially infectious components. 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 Call a doctor. Contains human source material and / or potentially infectious components.

Most important symptoms and effects, both acute and delayed

No information available.

For emergency responders No information available.

<u>Note to doctors</u> Contains human source material and / or potentially infectious components.

SECTION 5: Firefighting measures

Extinguishing media

surrounding environment.

Unsuitable extinguishing media No information available.

Specific hazards arising from the

<u>chemical</u>

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.

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Do not allow into any sewer, on the ground or into any body of water. Clean contaminated

surface thoroughly. Use:. Disinfectant.

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. Follow universal

and standard precautions for handling potentially infectious materials. 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 materialsNone 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.

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 protectionWear 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 Follow universal and standard precautions for handling potentially infectious materials.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance aqueous solution

Colour white
Physical state Liquid
Odour Odourless

Odour threshold No information available

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

pH None known

Melting point / freezing point No data available None known

Initial boiling point and boiling range> 100 °C Flash point > 160 °C

 Evaporation rate
 No data available
 None known

 Flammability
 No data available
 None known

 Flammability Limit in Air
 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 knownRelative vapour densityNo data availableNone knownRelative densityNo data availableNone known

Water solubility No data available 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 No data available Kinematic viscosity None known **Dynamic viscosity** No data available None known

Additional information

Explosive propertiesOxidising properties
Not applicable
Not applicable

SECTION 10: Stability and reactivity

Stability Stable under normal conditions.

<u>Possibility of hazardous reactions</u> None under normal processing.

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

Conditions to avoid None known based on information supplied.

Incompatible materialsNone known based on information supplied.

<u>Hazardous decomposition products</u> None known based on information supplied.

SECTION 11: Toxicological information

Acute toxicity

Numerical measures of toxicity

No information available

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
1,2,3-Propanetriol	= 12600 mg/kg (Rat)	> 10 g/kg (Rabbit)	> 2.75 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. 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 Specific target organ toxicity —

repeated exposure

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

Target organ effects Kidney. Respiratory system. Eyes. Skin.

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

SECTION 12: Ecological information

Ecotoxicity Harmful to aquatic life.

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
1,2,3-Propanetriol	-	LC50: 51 - 57mL/L (96h,	-
		Oncorhynchus mykiss)	

Persistence and degradability No information available.

Bioaccumulative potential There is no data for this product.

Component Information

Chemical name		Partition coefficient	
	1,2,3-Propanetriol	-1.75	

No information available. Mobility in soil

SECTION 13: Disposal considerations

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

environmental legislation.

<u>Contaminated packaging</u> 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

<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:

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 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 SubstancesContact 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 02-Apr-2024

Revision Note

Reformatted and updated existing information.

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

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

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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 Conjugate Revision date 13-Nov-2023 Revision Number 1.3

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

Product identifier

Product Name Conjugate

Catalogue Number(s) 220HSP, 220HAN, 220HDS, 220HCE, 220HSS

Other means of identification

Pure substance/mixture Mixture

Details of the supplier of the safety data sheet

<u>Corporate Headquarters</u> Bio-Rad Laboratories Inc. 1000 Alfred Nobel Drive

Hercules, CA 94547

USA

Manufacturer

Bio-Rad Laboratories, Diagnostic Group

4000 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 In-vitro laboratory reagent or component

SECTION 2: Hazards identification

Emergency Overview

May cause allergic skin reaction

Appearance aqueous solution Physical state Liquid Odour Odourless

Classification of the substance or mixture

Skin sensitisation Category 1A

Label elements



Signal word Warning

Hazard statements

May cause an allergic skin reaction

Precautionary statements

Prevention

Avoid breathing dust/fume/gas/mist/vapours/spray

Contaminated work clothing should not be allowed out of the workplace Wear protective gloves/protective clothing/eye protection/face protection

IF ON SKIN: Wash with plenty of water and soap

If skin irritation or rash occurs: Get medical advice/attention Take off all contaminated clothing and wash it before reuse

Disposal

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

Physical and chemical hazards

Not applicable.

Health hazards

Immediate Health Effects: Allergic reactions (sensitiser). Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing. Chronic effects: Not applicable.

Environmental hazards

Not applicable

Other hazards which do not result in classification

Contains animal source material (Goat)

SECTION 3: Composition/information on ingredients

Substance

Not applicable.

Mixture

SECTION 4: First aid measures

Description of necessary first aid measures

General advice Show this safety data sheet to the doctor in attendance.

Inhalation Remove to fresh air.

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

Consult a doctor.

Skin contact Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation

or allergic reactions see a doctor.

Ingestion Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed

Itching. Rashes. Hives.

For emergency responders No information available.

Note to doctors May cause sensitisation in susceptible persons. 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

Product is or contains a sensitiser. May cause sensitisation by skin contact.

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 Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal

protective equipment as required. Evacuate personnel to safe areas. Keep people away

from and upwind of spill/leak.

Use personal protection recommended in Section 8. For emergency responders

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.

hazards

<u>Precautions to prevent secondary</u> Clean contaminated objects and areas thoroughly observing environmental regulations.

SECTION 7: Handling and storage

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with Precautions for safe handling

skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. See Section 8 for information on

appropriate personal protective equipment.

Conditions for safe storage,

including any incompatibilities

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

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.

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.

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 amber
Physical state Liquid
Odour Odourless

Odour threshold No information available

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

pH 7.2

Melting point / freezing point No data available None known

Initial boiling point and boiling range100 °C

Flash pointNo data availableNone knownEvaporation rateNo data availableNone knownFlammabilityNo data availableNone knownFlammability Limit in AirNone known

Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

Vapour pressureNo data availableNone knownRelative vapour densityNo data availableNone knownRelative densityNo data availableNone known

Water solubility Miscible in water

Solubility(ies)No data availableNone knownPartition coefficientNo data availableNone known

Autoignition temperature No data available

Decomposition temperatureNo data availableNone knownKinematic viscosityNo data availableNone knownDynamic viscosityNo data availableNone 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 None. Sensitivity to static discharge None.

<u>Conditions to avoid</u> None known based on information supplied.

Incompatible materialsNone 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

Component Information

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 May cause sensitisation by skin contact.

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 0.94151 % of the mixture consists of component(s) of unknown hazards to the aquatic

environment

Persistence and degradability No information available.

Bioaccumulative potential There is no data for this product.

Mobility in soil No information available.

SECTION 13: Disposal considerations

Product Name Conjugate Revision date 13-Nov-2023

<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 Not regulated

Transport in bulk according to No information available

Annex II of MARPOL and the IBC

Code

<u>IATA</u> 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:

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 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 13-Nov-2023

Revision Note Reformatted and updated existing information.

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

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

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End of Safety Data Sheet



SAFETY DATA SHEET

Legal Entity / Contact Address

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

Bio-Rad Laboratories Ltd.

Thailand

Pathumwan, Bangkok 10330

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

Product Name Wash Concentrate Revision date 02-Apr-2024 Revision Number 1.2

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

Product identifier

Product Name Wash Concentrate

Catalogue Number(s) 230AW

Other means of identification

Pure substance/mixture Mixture

Details of the supplier of the safety data sheet

Corporate HeadquartersManufacturerBio-Rad Laboratories Inc.Bio-Rad Laboratories, Diagnostic Group

1000 Alfred Nobel Drive 4000 Alfred Nobel Drive Hercules, CA 94547 Hercules, California 94547

USA USA

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 In-vitro laboratory reagent or component

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

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.

Mixture

Not classified.

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

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

surrounding environment.

Unsuitable extinguishing media No information available.

Specific hazards arising from the

No information available.

chemical

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

fire-fighters Use personal protection equipment.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions See section 8 for more information.

Use personal protection recommended in Section 8. For emergency responders

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

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.

hazards

Precautions to prevent secondary Clean contaminated objects and areas thoroughly observing environmental regulations.

SECTION 7: Handling and storage

Handle in accordance with good industrial hygiene and safety practice. See Section 8 for Precautions for safe handling

information on appropriate personal protective equipment.

Conditions for safe storage, including any incompatibilities Store according to product and label instructions.

None known based on information supplied. Incompatible materials

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 chemical properties

Appearance aqueous solution

Colour white
Physical state Liquid
Odour Odourless

Odour threshold No information available

Property Values Remarks • Method 7.3

pH 7.3

Melting point / freezing point No data available None known

Initial boiling point and boiling range> 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 pressureNo data availableNone knownRelative vapour densityNo data availableNone knownRelative densityNo data availableNone known

Water solubility

Solubility(ies)

No data available
No data available

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

Additional information

Explosive propertiesOxidising properties
Not applicable
Not applicable

SECTION 10: Stability and reactivity

<u>Stability</u> Stable under normal conditions.

<u>Possibility of hazardous reactions</u> None under normal processing.

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

<u>Conditions to avoid</u> 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

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

ATEmix (oral) 25,431.70 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium chloride	= 3550 mg/kg (Rat)	> 10000 mg/kg(Rabbit)	> 42 mg/L (Rat)1 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. Based on available data, the classification criteria are not met. Respiratory or skin sensitisation 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 — Based on available data, the classification criteria are not met. single exposure Specific target organ toxicity — Based on available data, the classification criteria are not met. repeated exposure

SECTION 12: Ecological information

Ecotoxicity

Aspiration hazard

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

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

Chemical name	Algae/aquatic plants	Fish	Crustacea
Sodium chloride	-	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.

SECTION 13: Disposal considerations

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

environmental legislation.

Revision date 02-Apr-2024

<u>Contaminated packaging</u> 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:

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 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 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 02-Apr-2024

Revision Note Reformatted and updated existing information.

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

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

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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 Sample Diluent Revision date 02-Apr-2024 Revision Number 1.1

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

Product identifier

Product Name Sample Diluent

Catalogue Number(s) 230AD

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, Diagnostic Group

4000 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 In-vitro laboratory reagent or component

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

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 (Goat)

SECTION 3: Composition/information on ingredients

Substance

Not applicable.

Mixture

Not classified.

Chemical name	Weight-%	CAS No
Sodium chloride	1 - 2.5	7647-14-5

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

surrounding environment.

Unsuitable extinguishing media No information available.

Specific hazards arising from the

No information available.

chemical

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

fire-fighters 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.

hazards

Precautions to prevent secondary Clean contaminated objects and areas thoroughly observing environmental regulations.

SECTION 7: Handling and storage

Handle in accordance with good industrial hygiene and safety practice. See Section 8 for Precautions for safe handling

information on appropriate personal protective equipment.

Conditions for safe storage, including any incompatibilities Store according to product and label instructions.

Metals. Incompatible materials

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 chemical properties

Appearance aqueous solution

Colour white
Physical state Liquid
Odour Odourless

Odour threshold No information available

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

pH 7.3

Melting point / freezing point No data available None known

Initial boiling point and boiling range> 100 °C

Flash pointNo data availableNone knownEvaporation rateNo data availableNone knownFlammabilityNo data availableNone knownFlammability Limit in AirNone known

Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

Vapour pressureNo data availableNone knownRelative vapour densityNo data availableNone knownRelative densityNo data availableNone known

Water solubility

Solubility(ies)

No data available
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 No data available Kinematic viscosity None known **Dynamic viscosity** No data available None known

Additional information

Explosive propertiesOxidising 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 impact None. Sensitivity to static discharge None.

<u>Conditions to avoid</u> None known based on information supplied.

Incompatible materials Metals.

<u>Hazardous decomposition products</u> None known based on information supplied.

SECTION 11: Toxicological information

Acute toxicity

Numerical measures of toxicity

No information available

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium chloride	= 3550 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	> 42 mg/L (Rat)1 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. Based on available data, the classification criteria are not met. Carcinogenicity Based on available data, the classification criteria are not met. Reproductive toxicity Specific target organ toxicity — Based on available data, the classification criteria are not met. single exposure Specific target organ toxicity — Based on available data, the classification criteria are not met. repeated exposure **Aspiration hazard** Based on available data, the classification criteria are not met.

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
Sodium chloride	-	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.

Mobility in soil No information available.

SECTION 13: Disposal considerations

Bioaccumulative potential

<u>Waste chemicals</u> 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.

No information available.

<u>Contaminated packaging</u> 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

<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:

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 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 02-Apr-2024

Revision Note Reformatted and updated existing information.

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

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

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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)

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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

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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 Substrate Revision date 13-Nov-2023 Revision Number 1.2

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

Product identifier

Product Name Substrate

220TM Catalogue Number(s)

Other means of identification

UN/ID no UN1987

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, Diagnostic Group

4000 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 In-vitro laboratory reagent or component

SECTION 2: Hazards identification

Emergency Overview

Irritating to eyes

HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames

Appearance Liquid Physical state Liquid Odour Alcohol

Classification of the substance or mixture

Flammable liquids	Category 2
Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity - Single exposure	Category 1

Label elements



Signal word

Danger

Hazard statements

Highly flammable liquid and vapour Harmful if swallowed Harmful in contact with skin Harmful if inhaled Causes serious eye irritation Causes damage to organs

Precautionary statements

Prevention

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Wear protective gloves/protective clothing/eye protection/face protection

Use only outdoors or in a well-ventilated area

Do not breathe dust/fume/gas/mist/vapours/spray

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Use only non-sparking tools

Take precautionary measures against static discharge

Response

IF exposed or concerned: Call a POISON CENTER or doctor

IF INHALED: Remove person to fresh air and keep comfortable for breathing

Call a POISON CENTRE or doctor if you feel unwell

Call a POISON CENTRE or doctor if you feel unwell

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower

Wash contaminated clothing before reuse

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

Rinse mouth

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

Storage

Store in a well-ventilated place. Keep cool

Disposal

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

Physical and chemical hazards

Highly flammable liquid and vapour. Will be easily ignited by heat, sparks or flames. Vapours may form explosive mixtures with air. Vapours can travel considerable distances to a source of ignition where they can ignite, flash back, or explode. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated.

Health hazards

Immediate Health Effects: Harmful. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed. Causes severe irritation (tears, blurred vision and redness). Irritating, but will not permanently injure eye tissue. Chronic effects: Target organ(s).

Environmental hazards

Not applicable

Other hazards which do not result in classification

Not applicable

Product Name Substrate Revision date 13-Nov-2023

SECTION 3: Composition/information on ingredients

Substance

Not applicable.

<u>Mixture</u>

Chemical name	Weight-%	CAS No
Methanol	10 - 20	67-56-1
Acetone	10 - 20	67-64-1

SECTION 4: First aid measures

Description of necessary first aid measures

General advice Show this safety data sheet to the doctor in attendance.

Inhalation Remove to fresh air. IF exposed or concerned: Get medical advice/attention. If symptoms

persist, call a doctor. If breathing has stopped, give artificial respiration. Get medical

attention immediately.

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep Eye contact

eye wide open while rinsing. Do not rub affected area. If symptoms persist, call a doctor. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if

irritation develops and persists.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes

and shoes. If symptoms persist, call a doctor.

Ingestion Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water.

Never give anything by mouth to an unconscious person. Get medical attention.

Most important symptoms and

effects, both acute and delayed

May cause redness and tearing of the eyes. Burning sensation. Coughing and/ or wheezing.

Difficulty in breathing.

Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) For emergency responders

involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid

contact with skin, eyes or clothing. Avoid breathing vapours or mists.

Note to doctors Treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.

No information available. Unsuitable extinguishing media

Specific hazards arising from the

chemical

Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire

extinguishing water must be disposed of in accordance with local regulations.

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 Evacuate personnel to safe areas. Use personal protective equipment as required. See

section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Avoid breathing

vapours or mists.

Other information Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if

safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up

Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. 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

Use personal protection equipment. Avoid breathing vapours or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. See Section 8 for information on appropriate personal protective equipment.

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labelled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Keep out of the reach of children. Store locked up. Store according to product and label instructions.

Incompatible materialsNone known based on information supplied.

SECTION 8: Exposure controls/personal protection

Occupational exposure limits

Chemical name	China	ACGIH TLV
onomical name	J Olimia	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

Methanol - 67-56-1	TWA: 25 mg/m³ STEL: 50 mg/m³ Skin*	STEL: 250 ppm TWA: 200 ppm S*
Acetone - 67-64-1	TWA: 300 mg/m ³ STEL: 450 mg/m ³	STEL: 500 ppm TWA: 250 ppm

Note See section 16 for terms and abbreviations

Biological occupational exposure limits

ı	Chemical name	Biological standards	Monitoring and observation processes	ACGIH
	Methanol - 67-56-1			15 mg/L - urine (Methanol) - end of shift
	Acetone - 67-64-1	50 mg/L - urine (Acetone) - end of shift		25 mg/L - urine (Acetone) - end of shift

Monitoring and observation processes

No applicable information was found.

Showers **Engineering controls**

> Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Skin and body protection

Antistatic boots.

Hand protection Wear suitable gloves. Impervious gloves.

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.

Do not eat, drink or smoke when using this product. Contaminated work clothing should not General hygiene considerations

be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Liquid **Appearance** Colour white Physical state Liquid Odour Alcohol

Odour threshold No information available

Property Values Remarks • Method

None known Melting point / freezing point No data available None known

Initial boiling point and boiling range 55.8-56.6

16 °C Flash point

Evaporation rate No data available None known **Flammability** 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

No data available None known Vapour pressure

No data available None known Relative vapour density Relative density No data available None known Water solubility Miscible in water Solubility(ies) No data available None known None known No data available Partition coefficient No data available **Autoignition temperature** No data available None known **Decomposition temperature** No data available None known Kinematic viscosity Dynamic viscosity No data available None known

Additional information

Explosive propertiesNot applicableOxidising propertiesNot applicableLiquid Density0.93909

SECTION 10: Stability and reactivity

<u>Stability</u> Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

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

<u>Conditions to avoid</u> Heat, flames and sparks. Excessive heat.

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

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

ATEmix (oral) 665.70 mg/kg
ATEmix (dermal) 1,997.00 mg/kg
ATEmix (inhalation-dust/mist) 3.34 mg/l
ATEmix (inhalation-vapour) 241.80 mg/l

Unknown acute toxicity

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

3 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Methanol	= 6200 mg/kg (Rat)	= 15840 mg/kg (Rabbit)	= 22500 ppm (Rat) 8 h
Acetone	= 5800 mg/kg (Rat)	> 15700 mg/kg (Rabbit)	= 50100 mg/m ³ (Rat) 8 h

Skin corrosion/irritation May cause skin irritation.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes serious eye irritation.

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 toxicityBased on available data, the classification criteria are not met.

Specific target organ toxicity —

single exposure

Based on the classification criteria of the Globally Harmonized System as adopted in the country or region with which this safety data sheet complies, this product has been determined to cause systemic target organ toxicity from acute exposure. (STOT SE), Causes damage to organs if swallowed, Causes damage to organs in contact with skin.

Specific target organ toxicity —

repeated exposure

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

Target organ effects Respiratory system. Eyes. Skin. Central nervous system. Gastrointestinal tract (GI).

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

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
Methanol	-	LC50: =28200mg/L (96h,	-
		Pimephales promelas)	
		LC50: >100mg/L (96h,	
		Pimephales promelas)	
		LC50: 19500 - 20700mg/L (96h,	
		Oncorhynchus mykiss)	
		LC50: 18 - 20mL/L (96h,	
		Oncorhynchus mykiss)	
		LC50: 13500 - 17600mg/L (96h,	
		Lepomis macrochirus)	
Acetone	-	LC50: 4.74 - 6.33mL/L (96h,	EC50: 10294 - 17704mg/L (48h,
		Oncorhynchus mykiss)	Daphnia magna)
		LC50: 6210 - 8120mg/L (96h,	EC50: 12600 - 12700mg/L (48h,
		Pimephales promelas)	Daphnia magna)
		LC50: =8300mg/L (96h, Lepomis	
		macrochirus)	

<u>Persistence and degradability</u> No information available.

Bioaccumulative potential There is no data for this product.

Component Information

Chemical name	Partition coefficient
Methanol	-0.77
Acetone	-0.24

Mobility in soil No information available.

SECTION 13: Disposal considerations

Waste chemicals Should not be released into the environment. Dispose of in accordance with local

regulations. Dispose of waste in accordance with environmental legislation.

<u>Contaminated packaging</u> Empty containers pose a potential fire and explosion hazard. Do not cut, puncture of weld

containers.

SECTION 14: Transport information

IMDG

UN number or ID number UN1987

UN proper shipping name ALCOHOLS, N.O.S. (Methanol Solution, Acetone)

Description UN1987, ALCOHOLS, N.O.S. (Methanol Solution, Acetone), 3, II, (16°C C.C.)

Transport hazard class(es)

Packing group

Marine pollutant

Special Provisions

EmS-No

Special Provisions

F-E, S-D

Transport in bulk according to No information available

Annex II of MARPOL and the IBC

Code

IATA

UN number or ID number UN1987

UN proper shipping name Alcohols, n.o.s. (Methanol Solution, Acetone)

Description UN1987, Alcohols, n.o.s. (Methanol Solution, Acetone), 3, II

Transport hazard class(es) 3
Packing group II
Special Provisions A3, A180
ERG Code 3L

China

UN number or ID number UN1987

UN proper shipping name ALCOHOLS, N.O.S. (Methanol Solution, Acetone)

Transport hazard class(es) 3
Packing group | |

Description UN1987, ALCOHOLS, N.O.S. (Methanol Solution, Acetone), 3, II

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:

Listed. C

Catalogue of occupational diseases:

Listed. Chemical hazards.
Listed. Occupational poisoning.

Chemical name	Category
Methanol	Chemical hazards
Acetone	Chemical hazards

Regulations on the Control over Safety of Hazardous Chemicals

Inventory of hazardous chemicals

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed. Verify that licence requirements are met.

Flammable liquid - Category 2 Weight-% 25

Chemical name	Inventory of hazardous chemicals
Methanol	Listed
Acetone	Listed

GB 18218-2009 Identification of major hazard installations for dangerous chemicals

<u>Category</u> Flammable liquids Threshold quantity (T)

1000

Chemical name	Threshold quantity (T)
Methanol	500
Acetone	500

List of hazardous chemicals under priority management

Chemical name	List of priority hazardous chemicals under work safety management
Methanol	Listed

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 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 13-Nov-2023

Revision Note Reformatted and updated existing information.

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

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

Product Name Substrate Revision date 13-Nov-2023

Disclaimer

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

End of Safety Data Sheet



SAFETY DATA SHEET

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

Product Name Stop Solution Revision date 29-Mar-2024 Revision Number 1.2

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

Product identifier

Product Name Stop Solution

Catalogue Number(s) 220SM

Other means of identification

UN/ID no UN3264

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, Diagnostic Group

4000 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 In-vitro laboratory reagent or component

SECTION 2: Hazards identification

Emergency Overview

No significant adverse health effects

Appearance clear liquid Physical state Liquid Odour Odourless

Classification of the substance or mixture

Corrosive to metals Category 1

Label elements

CGHS / BE Page 47/54



Signal word Warning

Hazard statements
May be corrosive to metals

Precautionary statements
Prevention
Keep only in original container
Response

Absorb spillage to prevent material damage

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>

Chemical name	Weight-%	CAS No
Sulfuric acid	1 - 2.5	7664-93-9
Hydrochloric acid	1 - 2.5	7647-01-0

SECTION 4: First aid measures

Description of necessary first aid measures

General advice Show this safety data sheet to the doctor in attendance.

Inhalation Remove to fresh air. Get medical attention immediately if symptoms occur.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and

persists.

Skin contact Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical

attention if irritation develops and persists.

Ingestion Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth

to an unconscious person. Do NOT induce vomiting. Call a doctor.

Most important symptoms and effects, both acute and delayed No information available.

For emergency responders Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

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 Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal

protective equipment as required.

Other information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

Prevent further leakage or spillage if safe to do so. **Environmental precautions**

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.

hazards

Precautions to prevent secondary 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. Avoid contact with

> skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. See Section 8 for information on appropriate personal protective

equipment.

Conditions for safe storage, including any incompatibilities Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other

materials. Store according to product and label instructions.

Incompatible materials Oxidising agent. Product Name Stop Solution Revision date 29-Mar-2024

SECTION 8: Exposure controls/personal protection

Occupational exposure limits

Chemical name	China	ACGIH TLV
Sulfuric acid - 7664-93-9	TWA: 1 mg/m³ STEL: 2 mg/m³ G1(C**)	TWA: 0.2 mg/m³ thoracic particulate matter
Hydrochloric acid - 7647-01-0	Ceiling: 7.5 mg/m ³ Ceiling	Ceiling: 2 ppm

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 protectionWear suitable protective clothing.

Hand protection Wear suitable gloves.

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

General hygiene considerations Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this

product. Regular cleaning of equipment, work area and clothing is recommended.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance clear liquid
Colour colourless
Physical state Liquid
Odour Odourless

Odour threshold No information available

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

pH
Melting point / freezing point 0 °C
Initial boiling point and boiling range100 °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 pressureNo data availableNone knownRelative vapour densityNo data availableNone known

Product Name Stop Solution Revision date 29-Mar-2024

No data available None known Relative density Water solubility Miscible in water Solubility(ies) No data available None known Partition coefficient No data available None known No data available Autoignition temperature None known No data available Decomposition temperature None known No data available Kinematic viscosity None known None known Dynamic viscosity No data available

Additional information

Explosive properties Not applicable Oxidising properties Not applicable

SECTION 10: Stability and reactivity

Stability Stable under normal conditions.

<u>Possibility of hazardous reactions</u> None under normal processing.

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

<u>Conditions to avoid</u> Exposure to air or moisture over prolonged periods.

<u>Incompatible materials</u> Oxidising agent.

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

Component Information

	Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
	Sulfuric acid	= 2140 mg/kg (Rat)	-	= 0.375 mg/L (Rat) 4 h
Hydrochloric acid 238 - 277 mg/kg (Rat)		> 5010 mg/kg (Rabbit)	= 1.68 mg/L (Rat) 1 h	

Skin corrosion/irritationBased 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

The table below indicates whether each agency has listed any ingredient as a carcinogen.

The table below indicates whether each agency has	notod arry irigirodiorit do a carcinogori.	
Chemical name	China	IARC
Sulfuric acid	Carcinogenic to humans	Group 1
Hydrochloric acid	-	Group 3

Legend

Group 1 - Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

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.

Respiratory system. Eyes. Skin. Teeth. Target organ effects

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

SECTION 12: Ecological information

Ecotoxicity

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

Chemical name	Algae/aquatic plants	Fish	Crustacea
Sulfuric acid	-	LC50: >500mg/L (96h,	-
		Brachydanio rerio)	

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Mobility in soil No information available.

SECTION 13: Disposal considerations

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

environmental legislation.

Contaminated packaging Do not reuse empty containers.

SECTION 14: Transport information

IMDG

UN number or ID number UN3264

UN proper shipping name CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Sulfuric acid, Hydrochloric acid) Description

UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Sulfuric acid, Hydrochloric

acid), 8, III

Transport hazard class(es) 8 **Packing group** Ш Marine pollutant NP 223, 274 **Special Provisions EmS-No** F-A, S-B

Transport in bulk according to No information available

Annex II of MARPOL and the IBC

Code

IATA

UN3264 **UN** number or ID number

Corrosive liquid, acidic, inorganic, n.o.s. (Sulfuric acid, Hydrochloric acid) **UN** proper shipping name

Description

UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Sulfuric acid, Hydrochloric acid), 8, III

Transport hazard class(es)

Packing group III
Special Provisions A3, A803
ERG Code 8L

China

UN number or ID number UN3264

UN proper shipping name CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Sulfuric acid, Hydrochloric acid)

Transport hazard class(es) 8
Packing group | | | | |

Description UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Sulfuric acid, Hydrochloric

acid), 8, III

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:

Listed. Chemical hazards.

Catalogue of occupational diseases:

Listed. Occupational poisoning.

Chemical name	Category	
Sulfuric acid	Chemical hazards	
Hydrochloric acid	Chemical hazards	\neg

Regulations on the Control over Safety of Hazardous Chemicals

Inventory of hazardous chemicals

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed. Weight-% 3

Chemical name	Inventory of hazardous chemicals
Sulfuric acid	Listed
Hydrochloric acid	Listed

GB 18218-2009 Identification of major hazard installations for dangerous chemicals

C2 10210 2000 Recommendation of the or treatment for daily or one of the control	
Chemical name	Threshold quantity (T)
Hydrochloric acid	20

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 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

Product Name Stop Solution Revision date 29-Mar-2024

SECTION 16: Other information

Prepared By Bio-Rad Laboratories, Environmental Health and Safety

Revision date 29-Mar-2024

Revision Note Reformatted and updated existing information.

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

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

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End of Safety Data Sheet