



# SAFETY DATA SHEET

This safety data sheet complies with the requirements of:  
SS586: 2008 (2014)

Revision date 31-Aug-2022

Revision Number 1.1

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

### Product identifier

**Product Name** XT MOPS Running Buffer

### Other means of identification

**Catalogue Number(s)** 1610788, 1610788S, 1610788EDU, 1610788XTU

**Pure substance/mixture** Mixture

Contains 1,3-Propanediol, 2-[bis(2-hydroxyethyl)amino]-2-(hydroxymethyl)-, Sodium lauryl sulfate

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

**Recommended use** Laboratory chemicals

**Uses advised against** No information available

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

#### Corporate Headquarters

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

#### Manufacturer

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

#### Legal Entity / Contact Address

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Thailand

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ctsthailand@bio-rad.com

### Emergency telephone number

**24 Hour Emergency Phone Number** CHEMTREC Singapore: 65-31581349

## SECTION 2: Hazards identification

### GHS Classification

<b>Skin corrosion/irritation</b>	Category 2
<b>Serious eye damage/eye irritation</b>	Category 2
<b>Specific target organ toxicity (single exposure)</b>	Category 3

### Label elements

**Signal word**

Warning

**Hazard statements**

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

**Precautionary Statements - Prevention**

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

Wash face, hands and any exposed skin thoroughly after handling

Use only outdoors or in a well-ventilated area

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

**Precautionary Statements - Response**

If skin irritation occurs: Get medical advice/attention

Take off all contaminated clothing and wash it before reuse

IF ON SKIN: Wash with plenty of water and soap

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

Call a POISON CENTRE or doctor if you feel unwell

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

**Precautionary Statements - Storage**

Store locked up

Store in a well-ventilated place. Keep container tightly closed

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other hazards which do not result in classification****SECTION 3: Composition/information on ingredients****Substance**

Not applicable

**Mixture**

Chemical name	EC No	CAS No	Weight-%
1,3-Propanediol, 2-[bis(2-hydroxyethyl)amino]-2-( hydroxymethyl)-	230-237-7	6976-37-0	20 - 35
Sodium lauryl sulfate	205-788-1	151-21-3	1 - 2.5

Non-hazardous  
ingredients

Proprietary

Balance

**SECTION 4: First aid measures****Description of 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. 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	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician.

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

**Symptoms** May cause redness and tearing of the eyes. Burning sensation.

**For emergency responders**

**Self-protection of the first aider** Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

**SECTION 5: Firefighting measures****Suitable Extinguishing Media**

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

**Unsuitable extinguishing media** No information available.

**Specific hazards arising from the chemical**

**Specific hazards arising from the chemical** None known.

**Special protective actions for fire-fighters**

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**SECTION 6: Accidental release measures****Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing.

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

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

**Environmental precautions**

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

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

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Pick up and transfer to properly labeled containers.
<b>Prevention of secondary hazards</b>	Clean contaminated objects and areas thoroughly observing environmental regulations.
<b>Reference to other sections</b>	See section 8 for more information. See section 13 for more information.

**SECTION 7: Handling and storage****Precautions for safe handling**

<b>Advice on safe handling</b>	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. Take off contaminated clothing and wash before reuse. Ensure adequate ventilation. Avoid breathing vapors or mists. In case of insufficient ventilation, wear suitable respiratory equipment.
<b>General hygiene considerations</b>	Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing.

**Conditions for safe storage, including any incompatibilities**

<b>Storage Conditions</b>	Keep containers tightly closed in a dry, cool and well-ventilated place.
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**SECTION 8: Exposure controls/personal protection****Control parameters**

<b>Occupational exposure limits</b>	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
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**Biological occupational exposure limits**

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

**Appropriate engineering controls**

<b>Engineering controls</b>	Showers Eyewash stations Ventilation systems.
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**Individual protection measures, such as personal protective equipment**

<b>Eye/face protection</b>	If splashes are likely to occur, wear safety glasses with side-shields.
<b>Skin and body protection</b>	Wear suitable protective clothing. Long sleeved clothing.
<b>Hand protection</b>	Wear suitable gloves. Impervious gloves.
<b>Respiratory protection</b>	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
<b>Environmental exposure controls</b>	No information available.

**SECTION 9: Physical and chemical properties**

**Information on basic physical and chemical properties**

Physical state	Liquid
Appearance	aqueous solution
Colour	colourless
Odour	Odourless.
Odour threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	6.9	
Melting point / freezing point	No data available	None known
Boiling point / boiling range	> 100 °C	
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapour pressure	No data available	None known
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	
Decomposition temperature		None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

Other information No information available

**SECTION 10: Stability and reactivity**Reactivity

Reactivity No information available.

Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Possibility of hazardous reactions None under normal processing.

Conditions to avoid

Conditions to avoid None known based on information supplied.

Incompatible materials

Incompatible materials Strong acids. Strong bases. Strong oxidizing agents.

Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

**SECTION 11: Toxicological information**

**Information on likely routes of exposure****Product Information**

<b>Inhalation</b>	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).
<b>Ingestion</b>	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

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

**Symptoms** Redness. May cause redness and tearing of the eyes.

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

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

<b>ATEmix (oral)</b>	64,400.00 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	28.30 mg/l

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Water	> 90 mL/kg ( Rat )		
Sodium lauryl sulfate	= 1288 mg/kg ( Rat )	= 200 mg/kg ( Rabbit )	> 3900 mg/m <sup>3</sup> ( Rat ) 1 h
Ethylenediaminetetraacetic acid	> 2000 mg/kg ( Rat )		
Mesna	= 4440 mg/kg ( Rat )		

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

<b>Skin corrosion/irritation</b>	Classification based on data available for ingredients.
<b>Serious eye damage/eye irritation</b>	Classification based on data available for ingredients. Causes serious eye irritation.
<b>Respiratory or skin sensitization</b>	Based on available data, the classification criteria are not met.
<b>Germ cell mutagenicity</b>	Based on available data, the classification criteria are not met.
<b>Carcinogenicity</b>	Based on available data, the classification criteria are not met.
<b>Reproductive toxicity</b>	Based on available data, the classification criteria are not met.
<b>STOT - single exposure</b>	May cause respiratory irritation.
<b>STOT - repeated exposure</b>	Based on available data, the classification criteria are not met.

Aspiration hazard

Classification not possible.

**SECTION 12: Ecological information****Ecotoxicity****Ecotoxicity**

Harmful to aquatic life with long lasting effects.

**Unknown aquatic toxicity**

Contains 0 % of components with unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Crustacea
Sodium lauryl sulfate	EC50: 3.59 - 15.6mg/L (96h, <i>Pseudokirchneriella subcapitata</i> ) EC50: 30 - 100mg/L (96h, <i>Desmodesmus subspicatus</i> ) EC50: =117mg/L (96h, <i>Pseudokirchneriella subcapitata</i> ) EC50: =53mg/L (72h, <i>Desmodesmus subspicatus</i> )	LC50: 10.2 - 22.5mg/L (96h, <i>Pimephales promelas</i> ) LC50: 10.8 - 16.6mg/L (96h, <i>Poecilia reticulata</i> ) LC50: 13.5 - 18.3mg/L (96h, <i>Poecilia reticulata</i> ) LC50: 15 - 18.9mg/L (96h, <i>Pimephales promelas</i> ) LC50: 22.1 - 22.8mg/L (96h, <i>Pimephales promelas</i> ) LC50: 4.06 - 5.75mg/L (96h, <i>Lepomis macrochirus</i> ) LC50: 4.2 - 4.8mg/L (96h, <i>Lepomis macrochirus</i> ) LC50: 4.3 - 8.5mg/L (96h, <i>Oncorhynchus mykiss</i> ) LC50: 5.8 - 7.5mg/L (96h, <i>Pimephales promelas</i> ) LC50: 6.2 - 9.6mg/L (96h, <i>Pimephales promelas</i> ) LC50: 8 - 12.5mg/L (96h, <i>Pimephales promelas</i> ) LC50: 9.9 - 20.1mg/L (96h, <i>Brachydanio rerio</i> ) LC50: =1.31mg/L (96h, <i>Cyprinus carpio</i> ) LC50: =4.2mg/L (96h, <i>Oncorhynchus mykiss</i> ) LC50: =4.5mg/L (96h, <i>Lepomis macrochirus</i> ) LC50: =4.62mg/L (96h, <i>Oncorhynchus mykiss</i> ) LC50: =7.97mg/L (96h, <i>Brachydanio rerio</i> )	EC50: =1.8mg/L (48h, <i>Daphnia magna</i> )

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

No information available.

**Bioaccumulative potential****Bioaccumulation**

There is no data for this product.

Chemical name	Partition coefficient
1,3-Propanediol, 2-[bis(2-hydroxyethyl)amino]-2-(hydroxymethyl)-	-2.26
Sodium lauryl sulfate	1.6

**Mobility**

**Mobility in soil** No information available.

**PBT and vPvB assessment**

Chemical name	PBT and vPvB assessment
1,3-Propanediol, 2-[bis(2-hydroxyethyl)amino]-2-(hydroxymethyl)-	The substance is not PBT / vPvB
Sodium lauryl sulfate	The substance is not PBT / vPvB

**Other adverse effects**

**Other adverse effects** No information available

## SECTION 13: Disposal considerations

**Waste treatment methods**

**Waste from residues/unused products** Dispose of waste in accordance with environmental legislation. Dispose of in accordance with local regulations.

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

## SECTION 14: Transport information

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

**IATA** Not regulated

## SECTION 15: Regulatory information

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

**Singapore**

**Environmental Protection and Management (Hazardous Substances) Regulations**

Verify that licence requirements are met.

Chemical name	Hazardous Substances	transport
Sodium lauryl sulfate	Exclusions: 1. Preparations containing <5% by weight of anionic surface active agents. 2. Preparations containing anionic surface active agents which are not <90% biodegradable under a test carried out in accordance with that part of the OECD method which is referred to as Confirmatory Test Procedure in European Communities Council Directive No. 73/405/EEC or other equivalent test methods acceptable to the Director-General	

**Environmental Public Health Act**

Dispose of waste product or used containers according to local regulations.



**Hazardous Waste (Control of Export, Import and Transit) Act**

It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Take note that wastes may be subject to export, import, or transit controls pursuant to the Basel convention and/or local regulations implementing the Basel convention.

**Poison**

None Listed

**Workplace Safety and Health Act**

Comply with the health and safety at work laws.

**International Regulations**

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

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

**International Inventories**

Contact supplier for inventory compliance status

**SECTION 16: Other information****Key or legend to abbreviations and acronyms used in the safety data sheet**

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

**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  
 Australia 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)  
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
 Organization for Economic Co-operation and Development Screening Information Data Set  
 RTECS (Registry of Toxic Effects of Chemical Substances)  
 World Health Organization

**Label elements**

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
 P264 - Wash face, hands and any exposed skin thoroughly after handling  
 P312 - Call a POISON CENTER or doctor if you feel unwell  
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

P273 - Avoid release to the environment

P280 - Wear protective gloves/protective clothing/eye protection/face protection

**Issuing Date** Bio-Rad Laboratories, Environmental Health and Safety

**Revision date** 31-Aug-2022

**Revision Note** Reformatted and updated existing information.

**This safety data sheet complies with the requirements of: SS586: 2008 (2014)**

**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**