

SAFETY DATA SHEET

(SDS)

This safety data sheet complies with the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008, (EU) No. 2015/830

Revision Date 11-Sep-2024

WAI2 - EGHS - EUROPEAN

Revision Number 1

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifier

Product Name Eutech pH 10.01 Buffer Solution

Product No 01X608101
Unique Formula Identifier (UFI) Not applicable

REACH registration number Not applicable

Pure substance/mixture Mixture

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

Recommended Use Use as laboratory reagent

Uses advised against No Information available

1.3. Details of the supplier of the safety data sheet

Manufacturer, Importer, Supplier Eutech Instruments Pte Ltd
part of Thermo Fisher Scientific
7 Gul Circle, #2M-01
Keppel Logistics Building
Singapore 629563

E-mail address wlp.techsupport@thermofisher.com

Made in Singapore

1.4. Emergency telephone number 24 Hour Emergency Phone Number
CHEMTREC®
Within USA and Canada: 1-800-424-9300
Outside USA and Canada: 1-703-527-3887
(collect calls accepted)

SECTION 2. HAZARDS IDENTIFICATION**2.1. Classification of the substance or mixture****Classification - Mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

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

2.2. Label elements**Signal Word**

None

Hazard Statements

None

Precautionary Statements**2.3. Other hazards****General Hazards**

This product does not contain any known or suspected endocrine disruptors
Toxic to terrestrial vertebrates

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC No	CAS No	Weight %	GHS Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567	REACH Reg. No
Water	EEC No. 231-791-2	7732-18-5	90 - 100%	Not classified	No information available
Amaranth Red No. 27	EEC No. 213-022-2	915-67-3	0 - 10%		No information available
Sodium Bicarbonate	EEC No. 205-633-8	144-55-8	0 - 10%		No information available
Methylparaben	EEC No. 202-785-7	99-76-3	0 - 10%		No information available
FD & C Blue #1	EEC No. 223-339-8	3844-45-9	0 - 10%		No information available

Component	CAS No	Specific concentration limits (SCL's)	M-Factor	Component notes
Water	7732-18-5	-	-	-
Amaranth Red No. 27	915-67-3	-	-	-
Sodium Bicarbonate	144-55-8	-	-	-
Methylparaben	99-76-3	-	-	-
FD & C Blue #1	3844-45-9	-	-	-

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Advice	Use first aid treatment according to the nature of the injury. For further assistance, contact your local Poison Control Center. Show this safety data sheet to the doctor in attendance.
Eye Contact	In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
Inhalation	Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Call a physician or poison control center immediately.
Self-Protection of the First Aider	No special precautions required.

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

Most important symptoms and effects	See section 11, See section 2 for more information
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4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically
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SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media

No information available

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors.

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal Precautions	Use personal protective equipment as required. Evacuate personnel to safe areas.
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6.2. Environmental precautions

Environmental Precautions	Should not be released into the environment. Collect spillage. Dispose of waste product or used containers according to local regulations.
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6.3. Methods and material for containment and cleaning up

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

Methods for Cleaning Up Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

Reference to Other Sections

Refer to protective measures listed in Sections 7 and 8

See Section 8 for information on appropriate personal protective equipment

See Section 12 for additional Ecological Information

See Section 13 for additional waste treatment information

SECTION 7: HANDLING AND STORAGE**7.1. Precautions for safe handling****Advice on safe handling**

To avoid risks to human health and the environment, comply with the instructions for use. Wear personal protective equipment/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Ensure adequate ventilation, especially in confined areas.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities**Storage Conditions**

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Protect from direct sunlight.

7.3. Specific end use(s)**Specific Use(s)**

Use as laboratory reagent

Risk Management Methods (RMM)

The information required is contained in this Safety Data Sheet.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters****Exposure limits**

List source(s):

Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Sodium Bicarbonate					TWA: 5 mg/m ³ 8 hodinách. Ceiling: 10 mg/m ³

Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Sodium Bicarbonate	TWA: 5 mg/m ³				

Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Sodium Bicarbonate	MAC: 5 mg/m ³				
Methylparaben	MAC: 4 mg/m ³				

Biological limit values

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

regulatory bodies

Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

Derived No Effect Level (DNEL)

See table for values

Component	Acute effects local (Dermal)	Acute effects systemic (Dermal)	Chronic effects local (Dermal)	Chronic effects systemic (Dermal)
Methylparaben 99-76-3 (0 - 10%)				DNEL = 9.8mg/kg bw/day

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
Methylparaben 99-76-3 (0 - 10%)				DNEL = 58.76mg/m ³

Predicted No Effect Concentration (PNEC)

See values below.

Component	Fresh water	Fresh water sediment	Water Intermittent	Microorganisms in sewage treatment	Soil (Agriculture)
Methylparaben 99-76-3 (0 - 10%)	PNEC = 2.4µg/L	PNEC = 63.2µg/kg sediment dw	PNEC = 0.112mg/L	PNEC = 2mg/L	PNEC = 11.5µg/kg soil dw

Component	Marine water	Marine water sediment	Marine water intermittent	Food chain	Air
Methylparaben 99-76-3 (0 - 10%)	PNEC = 0.24µg/L	PNEC = 6.32µg/kg sediment dw			

8.2. Exposure controls

Engineering Measures None under normal use conditions

Personal protective equipment

Eye/face Protection Wear chemical splash goggles and face shield. If splashes are likely to occur:. Goggles.

Skin and body protection Wear protective gloves/protective clothing.

Respiratory Protection No protective equipment is needed under normal use conditions.

Recommended Filter type: Particle filter.

Environmental exposure controls No information available

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State Liquid

Appearance Blue

Odor	Odorless
Odor Threshold	No information available
PH Range	10.01 @25 °C

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point/freezing point	No information available	
Boiling Point/Range	~ 100 °C	
Flash Point (High in °C)	No information available	
Evaporation Rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor Density	No information available	
Specific Gravity	No information available	
Water Solubility	Soluble	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition Temperature	-	
Decomposition Temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive Properties	No information available	
Oxidizing Properties	No information available	
 <u>9.2. Other information</u>		
Softening Point	No information available	
Molecular Weight	No information available	
VOC Content(%)	No information available	
Density	1.0 g/cm ³ @25°C	
Bulk Density	No information available	

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
No information available

10.2. Chemical stability
Stable under normal conditions

Explosion Data

Sensitivity to Mechanical Impact	None
Sensitivity to Static Discharge	None

10.3. Possibility of hazardous reactions
None under normal processing

10.4. Conditions to avoid
Extremes of temperature and direct sunlight

10.5. Incompatible materials
No information available

10.6. Hazardous decomposition products
Thermal decomposition can lead to release of irritating gases and vapors

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**Product Information****Acute Toxicity**

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	LD50 > 90 mL/kg (Rat)		
Amaranth Red No. 27	LD50 = 6 g/kg (Rat)		
Sodium Bicarbonate	LD50 = 4220 mg/kg (Rat)		
FD & C Blue #1	LD50 > 1900 mg/kg (Rat)		

Skin Corrosion/Irritation No information available

Serious eye damage/eye irritation No information available

Sensitization No information available

Mutagenic Effects No information available

Carcinogenic effects No information available

Reproductive Effects No information available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs None known.

Aspiration hazard No information available

11.2. Information on other hazards

Endocrine Disrupting Properties Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

Component	EU National Authorities Endocrine Disruptor Lists - Health
Methylparaben 99-76-3 (0 - 10%)	List II

SECTION 12. ECOLOGICAL INFORMATION**12.1. Toxicity****Ecotoxicity effects**

Component	Freshwater Algae	Freshwater Fish	Water Flea
Sodium Bicarbonate	-	LC50: 8250 - 9000 mg/L, 96h static (Lepomis macrochirus)	EC50: = 2350 mg/L, 48h (Daphnia magna)
Methylparaben	-	LC50: = 59.5 mg/L, 96h semi-static (Oryzias latipes)	-

12.2. Persistence and degradability**12.3. Bioaccumulative potential**

Component	log Pow	Bioconcentration factor (BCF)
Amaranth Red No. 27	-5.13	No data available
FD & C Blue #1	<-6.4	No data available

12.4. Mobility in soil

Component	log Pow
Amaranth Red No. 27 915-67-3 (0 - 10%)	-5.13
FD & C Blue #1 3844-45-9 (0 - 10%)	<-6.4

12.5. Results of PBT and vPvB assessment

No information available

12.6. Endocrine disrupting properties

This product does not contain any known or suspected endocrine disruptors

12.7. Other adverse effects**Persistent Organic Pollutant**

This product does not contain any known or suspected substance

Ozone Depletion Potential

This product does not contain any known or suspected substance

SECTION 13. DISPOSAL CONSIDERATIONS**13.1. Waste treatment methods****Waste from Residues/Unused Products**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging

Improper disposal or reuse of this container may be dangerous and illegal.

SECTION 14: TRANSPORT INFORMATION**IMDG/IMO**

14.1 UN-No	Not Regulated
14.2 Proper Shipping Name	Not Regulated
14.3 Hazard Class	Not Regulated
14.4 Packing Group	Not Regulated
14.5 Marine Pollutant	Not Applicable
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

ADR

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

ICAO

14.1 UN-No	Not Regulated
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14.2 Proper Shipping Name	Not Regulated
14.3 Hazard Class	Not Regulated
14.4 Packing Group	Not Regulated
14.5 Environmental hazard	Not Applicable
14.6 Special Provisions	None

IATA

14.1 UN-No	Not Regulated
14.2 Proper Shipping Name	Not Regulated
14.3 Hazard Class	Not Regulated
14.4 Packing Group	Not Regulated
14.5 Environmental hazard	Not Applicable
14.6 Special Provisions	None

SECTION 15: REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****International Inventories**

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS), U.S.A. (TSCA).

Component	CAS No	EINECS	ELINCS	NLP	IECSC	TCSI	KECL	ENCS	ISHL
Water	7732-18-5	231-791-2	-	-	X	X	KE-35400	X	-
Amaranth Red No. 27	915-67-3	213-022-2	-	-	X	X	KE-20344	X	X
Sodium Bicarbonate	144-55-8	205-633-8	-	-	X	X	KE-31360	X	X
Methylparaben	99-76-3	202-785-7	-	-	X	X	KE-20379	X	X
FD & C Blue #1	3844-45-9	223-339-8	-	-	X	X	KE-13703	X	X

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Water	7732-18-5	X	ACTIVE	X	-	X	X	X
Amaranth Red No. 27	915-67-3	X	ACTIVE	X	-	X	X	X
Sodium Bicarbonate	144-55-8	X	ACTIVE	X	-	X	X	X
Methylparaben	99-76-3	X	ACTIVE	X	-	X	X	X
FD & C Blue #1	3844-45-9	X	ACTIVE	X	-	X	X	X

Legend: X - Listed '-' - Not Listed

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

European Union**Authorisation/Restrictions according to EU REACH**

Not applicable

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Water	7732-18-5	-	-	-
Amaranth Red No. 27	915-67-3	-	Use restricted. See entry 75. (see link for restriction details)	-
Sodium Bicarbonate	144-55-8	-	-	-
Methylparaben	99-76-3	-	-	-
FD & C Blue #1	3844-45-9	-	-	-

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

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

National Regulations

UK - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

WGK Classification

Water endangering class = 1 (self classification)

Component	Germany - Water Classification (AwSV)
Sodium Bicarbonate 144-55-8 (0 - 10%)	WGK1
Methylparaben 99-76-3 (0 - 10%)	WGK1
FD & C Blue #1 3844-45-9 (0 - 10%)	WGK1

Component	Switzerland - Ordinance on the Reduction of Risk from handling of hazardous substances preparation (SR 814.81)	Switzerland - Ordinance on Incentive Taxes on Volatile Organic Compounds (OVOC)	Switzerland - Ordinance of the Rotterdam Convention on the Prior Informed Consent Procedure
Methylparaben 99-76-3 (0 - 10%)	Prohibited and Restricted Substances		
FD & C Blue #1 3844-45-9 (0 - 10%)	Prohibited and Restricted Substances		

15.2. Chemical safety assessment

A Chemical safety assessment according to regulation (EC) No. 1907/2006 is not required

SECTION 16: OTHER INFORMATION**Full text of H-Statements referred to under sections 2 and 3**

H319 - Causes serious eye irritation

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

CAS - Chemical Abstracts Service

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

DNEL - Derived No Effect Level

RPE - Respiratory Protective Equipment

LC50 - Lethal Concentration 50%

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer Predicted No Effect Concentration (PNEC)

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50%

NOEC - No Observed Effect Concentration**PBT** - Persistent, Bioaccumulative, Toxic**POW** - Partition coefficient Octanol:Water**vPvB** - very Persistent, very Bioaccumulative**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code**OECD** - Organisation for Economic Co-operation and Development**BCF** - Bioconcentration factor**TWA** TWA (time-weighted average)**Ceiling** Maximum limit value**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association**MARPOL** - International Convention for the Prevention of Pollution from Ships**ATE** - Acute Toxicity Estimate**VOC** - (Volatile Organic Compound)**STEL** STEL (Short Term Exposure Limit)**Key literature references and sources for data**<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Prepared By Regulatory Affairs**Prepared For** Thermo Fisher Scientific Inc.**Issue Date** No information available**Revision Date** 11-Sep-2024**Reason for revision** SDS sections updated.**Training Advice** Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

This safety data sheet complies with Regulation UK SI 2019/758 and UK SI 2020/1577 as amended.

Disclaimer

IMPORTANT: The information contained in this SDS is correct to the best of our knowledge as of the issue date (or subsequent revision date, if any), and is to be used only as a guide. This SDS does not constitute a guarantee (express or implied) of any kind and we make no warranties of any kind as to the accuracy or completeness of the information contained herein or the merchantability or fitness of the product or this information for a particular purpose. It is the responsibility of each individual buyer/user to determine the suitability of this information and the product for its intended purposes. Product sales are subject to Thermo Fisher Scientifics standard terms and conditions of sale. This information relates only to the designated product as shipped and may not be valid if the product is used in combination with any other materials or is not used in accordance with our instructions, or is altered in any way. It is the responsibility of the buyer/user to ensure that its activities comply with all applicable government requirements. Since conditions of use of the product are not under direct control of Thermo Fisher Scientific, it is the duty of the buyer/user to determine the necessary conditions for the safe use of the product. Thermo Fisher Scientific will not be liable for any injuries or damages resulting from handling, use, misuse or contact with the product.

End of Safety Data Sheet