

MOEL's Public Notice No. 2023-9 (Standards for Classification and Labeling of Chemical Substances and Safety Data Sheets)

WAI4 - KGHS - KOREAN

Issue Date 05-Sep-2019

Revision Date 11-Sep-2024

Revision Number 1

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

Product Identifier

Product Name Eutech pH 10.01 Buffer Solution

Product No 01X608101

Pure substance/mixture Mixture

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

Recommended Use Use as laboratory reagent

Uses advised against No Information available

Manufacturer Address

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part of Thermo Fisher Scientific
7 Gul Circle, #2M-01
Keppel Logistics Building
Singapore 629563

Importer

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Emergency telephone: Medical: +(82) 070-7686-0086 or + 1-703-741-5970
CHEMTREC: 080 822 1374 (Local), CHEMTREC: 1-800-424-9300 or + 1-703-527-3887
Korea: 00-308-13-2549 (24 hours a day, 7 days a week)

Made in Singapore

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SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Physical hazards

Based on available data, the classification criteria are not met

Health hazards

Based on available data, the classification criteria are not met

Environmental hazards

Based on available data, the classification criteria are not met

Label Elements

Other Hazards

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

NFPA

Health

-

Flammability

-

Instability

-

Physical hazards

N/A

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	Common Name	CAS No	Index No	Weight %
Water	No information available	7732-18-5	KE-35400	99 - 100
Amaranth Red No. 27	No information available	915-67-3	KE-20344	<0.1
Sodium Bicarbonate	No information available	144-55-8	KE-31360	<0.1
Methylparaben	No information available	99-76-3	KE-20379	<0.1
FD & C Blue #1	No information available	3844-45-9	KE-13703	<0.1

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General Advice

Use first aid treatment according to the nature of the injury. Get medical attention immediately if symptoms occur. Show this safety data sheet to the doctor in attendance.

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Eye Contact	Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention.
Skin Contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. In case of skin reactions, consult 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.

Most important symptoms and effects, both acute and delayed

Most important symptoms and effects No information available

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

SECTION 5: FIREFIGHTING MEASURES

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.

Explosion Data

Sensitivity to Mechanical Impact None

Sensitivity to Static Discharge None

Protective Equipment and Precautions 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

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions Use personal protective equipment as required. For further specification, refer to section 8 of the SDS. Evacuate personnel to safe areas.

Environmental Precautions Collect spillage. See Section 12 for additional Ecological Information.

Methods and Material for Containment and Cleaning Up

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

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

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Handling To avoid risks to human health and the environment, comply with the instructions for use

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Wear personal protective equipment/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Ensure adequate ventilation, especially in confined areas

Conditions for Safe Storage, Including any Incompatibilities

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

Incompatible Products No information available

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Component	CAS No	Korea	ACGIH TLV	OSHA PEL
Water	7732-18-5	Not listed	Not listed	Not listed
Amaranth Red No. 27	915-67-3	Not listed	Not listed	Not listed
Sodium Bicarbonate	144-55-8	Not listed	Not listed	Not listed
Methylparaben	99-76-3	Not listed	Not listed	Not listed
FD & C Blue #1	3844-45-9	Not listed	Not listed	Not listed

Component	CAS No	European Union	The United Kingdom	Germany
Water	7732-18-5	Not listed	Not listed	Not listed
Amaranth Red No. 27	915-67-3	Not listed	Not listed	Not listed
Sodium Bicarbonate	144-55-8	Not listed	Not listed	Not listed
Methylparaben	99-76-3	Not listed	Not listed	Not listed
FD & C Blue #1	3844-45-9	Not listed	Not listed	Not listed

ACGIH - Biological Exposure Indices

Component	CAS No	ACGIH - Biological Exposure Indices
Water	7732-18-5	Not listed
Amaranth Red No. 27	915-67-3	Not listed
Sodium Bicarbonate	144-55-8	Not listed
Methylparaben	99-76-3	Not listed
FD & C Blue #1	3844-45-9	Not listed

Appropriate engineering controls

Engineering Measures None under normal use conditions

Individual protection measures, such as personal protective equipment

Personal protective equipment Use only those certified by the Korea Occupational Safety and Health Administration.

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

Skin and Body Protection Wear protective gloves/protective clothing.

Respiratory Protection None under normal use conditions. In case of inadequate ventilation wear respiratory protection.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls No information available

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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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)	N/A	
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	

Other Information

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

Reactivity

No Information available

Chemical Stability

Stable under normal conditions

Possibility of Hazardous Reactions

None under normal processing

Conditions to Avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

No information available

Hazardous Decomposition Products

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

SECTION 11: TOXICOLOGICAL INFORMATION

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Product Information

Information on likely routes of exposure

Inhalation	Not an expected route of exposure.
Ingestion	Not an expected route of exposure.
Eyes	Not an expected route of exposure.
Skin	No known effect based on information supplied.

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water 7732-18-5	LD50 > 90 mL/kg (Rat)	-	-
Amaranth Red No. 27 915-67-3	LD50 = 6 g/kg (Rat)	-	-
Sodium Bicarbonate 144-55-8	LD50 = 4220 mg/kg (Rat)	-	-
FD & C Blue #1 3844-45-9	LD50 > 1900 mg/kg (Rat)	-	-

Information on Toxicological Effects

Symptoms No information available

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

Sensitization No information available

Mutagenic Effects No information available

Carcinogenicity No information available.

Reproductive Effects No information available

STOT - single exposure No information available

STOT - repeated exposure No information available
Target Organs None known.

Aspiration hazard No information available

Numerical measures of toxicity - Product Information

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Water Flea
Sodium Bicarbonate 144-55-8	-	LC50: 8250 - 9000 mg/L, 96h static (Lepomis macrochirus)	EC50: = 2350 mg/L, 48h (Daphnia magna)
Methylparaben 99-76-3	-	LC50: = 59.5 mg/L, 96h semi-static (Oryzias latipes)	-

Persistence and Degradability

No information available

Bioaccumulation/ Accumulation

No information available

Mobility

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No information available.

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

Other adverse effects

No information available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste Disposal Methods

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

Road and Rail Transport

Not Regulated

IATA

Not regulated

IMDG/IMO

Not regulated

Marine Pollutant

Not Applicable

Special Precautions for User

No special precautions required

SECTION 15: REGULATORY INFORMATION

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

Legend: X - Listed '-' - Not Listed

International Inventories

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

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Water	7732-18-5	Not applicable	Not applicable	Not applicable	Not applicable
Amaranth Red No. 27	915-67-3	Not applicable	Not applicable	Not applicable	Not applicable
Sodium Bicarbonate	144-55-8	Not applicable	Not applicable	Not applicable	Not applicable
Methylparaben	99-76-3	Not applicable	Not applicable	Not applicable	Not applicable
FD & C Blue #1	3844-45-9	Not applicable	Not applicable	Not applicable	Not applicable

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential
Water	7732-18-5	Listed	Not applicable	Not applicable
Amaranth Red No. 27	915-67-3	Not applicable	Not applicable	Not applicable
Sodium Bicarbonate	144-55-8	Listed	Not applicable	Not applicable
Methylparaben	99-76-3	Not applicable	Not applicable	Not applicable

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FD & C Blue #1	3844-45-9	Listed	Not applicable	Not applicable
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Korean National Regulations

Component	CAS No	Act on Registration and Evaluation of Chemical Substances (K-REACH)	Authorised Chemicals	Existing Substances Subject to Registration
Water	7732-18-5	Annex 1 - KE-35400 Exempt (Index No. 25)	Not applicable	Not applicable
Amaranth Red No. 27	915-67-3	Annex 1 - KE-20344	Not applicable	Not applicable
Sodium Bicarbonate	144-55-8	Annex 1 - KE-31360	Not applicable	Not applicable
Methylparaben	99-76-3	Annex 1 - KE-20379	Not applicable	Not applicable
FD & C Blue #1	3844-45-9	Annex 1 - KE-13703	Not applicable	Not applicable

Component	CAS No	Chemical Control Act - Toxic Chemicals	Chemical Control Act - Prohibited Chemicals	Chemical Control Act - Use Restricted Chemicals
Water	7732-18-5	Not applicable	Not applicable	Not applicable
Amaranth Red No. 27	915-67-3	Not applicable	Not applicable	Not applicable
Sodium Bicarbonate	144-55-8	Not applicable	Not applicable	Not applicable
Methylparaben	99-76-3	Not applicable	Not applicable	Not applicable
FD & C Blue #1	3844-45-9	Not applicable	Not applicable	Not applicable

Component	CAS No	Chemical Control Act - Accident Precaution Chemicals (% in mixtures)	Chemical Control Act - Accident Precaution Chemicals - Quantity limits Storage (% in mixtures)	Chemical Control Act - Accident Precaution Chemicals - Quantity limits Manufacture/Use (% in mixtures)
Water	7732-18-5	Not applicable	Not applicable	Not applicable
Amaranth Red No. 27	915-67-3	Not applicable	Not applicable	Not applicable
Sodium Bicarbonate	144-55-8	Not applicable	Not applicable	Not applicable
Methylparaben	99-76-3	Not applicable	Not applicable	Not applicable
FD & C Blue #1	3844-45-9	Not applicable	Not applicable	Not applicable

Component	CAS No	Waste Control Law	Ministry of Environment - CMR risk	Ministry of Environment - Critically Controlled Substance
Water	7732-18-5	Not applicable	Not applicable	Not applicable
Amaranth Red No. 27	915-67-3	Not applicable	Not applicable	Not applicable
Sodium Bicarbonate	144-55-8	Not applicable	Not applicable	Not applicable
Methylparaben	99-76-3	Not applicable	Not applicable	Not applicable
FD & C Blue #1	3844-45-9	Not applicable	Not applicable	Not applicable

Component	CAS No	ISHA - Harmful Agents Subject to Work Environment Monitoring	ISHA - Prohibited substances	ISHA - Substances requiring permission
Water	7732-18-5	Not applicable	Not applicable	Not applicable
Amaranth Red No. 27	915-67-3	Not applicable	Not applicable	Not applicable
Sodium Bicarbonate	144-55-8	Not applicable	Not applicable	Not applicable
Methylparaben	99-76-3	Not applicable	Not applicable	Not applicable
FD & C Blue #1	3844-45-9	Not applicable	Not applicable	Not applicable

Component	CAS No	ISHA - Substances subject to control	ISHA - Harmful Agents Requiring Health Examination	ISHA - Permissible Exposure Limits
Water	7732-18-5	Not applicable	Not applicable	Not applicable
Amaranth Red No. 27	915-67-3	Not applicable	Not applicable	Not applicable
Sodium Bicarbonate	144-55-8	Not applicable	Not applicable	Not applicable
Methylparaben	99-76-3	Not applicable	Not applicable	Not applicable
FD & C Blue #1	3844-45-9	Not applicable	Not applicable	Not applicable

Component	CAS No	ISHA - Subject to Process Safety Reports	ISHA - Threshold Limit Values (TLVs) Chemicals	ISHA - Special management materials
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		(minimum quantity)		
Water	7732-18-5	Not applicable	Not applicable	Not applicable
Amaranth Red No. 27	915-67-3	Not applicable	Not applicable	Not applicable
Sodium Bicarbonate	144-55-8	Not applicable	Not applicable	Not applicable
Methylparaben	99-76-3	Not applicable	Not applicable	Not applicable
FD & C Blue #1	3844-45-9	Not applicable	Not applicable	Not applicable

National Fire Association - Dangerous Substances Minimum quantity requiring a permit

Component	CAS No	Class 1 - Oxidising solids	Class 2 - Flammable solid	Class 3 - Spontaneously Combustible Substances and Dangerous Substances When Wet	Class 4 - Flammable liquids	Class 5 - Self-reactive substances	Class 6 - Oxidising liquids
Water	7732-18-5	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Amaranth Red No. 27	915-67-3	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Sodium Bicarbonate	144-55-8	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Methylparaben	99-76-3	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
FD & C Blue #1	3844-45-9	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Control Parameters

Component	CAS No	Korea	ACGIH - Biological Exposure Indices
Water	7732-18-5	Not listed	Not listed
Amaranth Red No. 27	915-67-3	Not listed	Not listed
Sodium Bicarbonate	144-55-8	Not listed	Not listed
Methylparaben	99-76-3	Not listed	Not listed
FD & C Blue #1	3844-45-9	Not listed	Not listed

US Management Information

OSHA - Occupational Safety and Health Administration

Not applicable

Component	CAS No	Specifically Regulated Chemicals	Highly Hazardous Chemicals
Water	7732-18-5	Not applicable	Not applicable
Amaranth Red No. 27	915-67-3	Not applicable	Not applicable
Sodium Bicarbonate	144-55-8	Not applicable	Not applicable
Methylparaben	99-76-3	Not applicable	Not applicable
FD & C Blue #1	3844-45-9	Not applicable	Not applicable

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355)

Component	CAS No	CERCLA Extremely Hazardous Substances RQs	Hazardous Substances RQs	SARA 313 - Threshold Values %
Water	7732-18-5	Not applicable	Not applicable	Not applicable
Amaranth Red No. 27	915-67-3	Not applicable	Not applicable	Not applicable
Sodium Bicarbonate	144-55-8	Not applicable	Not applicable	Not applicable
Methylparaben	99-76-3	Not applicable	Not applicable	Not applicable
FD & C Blue #1	3844-45-9	Not applicable	Not applicable	Not applicable

GHS Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

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

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SECTION 16: OTHER INFORMATION

Prepared By	Regulatory Affairs
Prepared For	Thermo Fisher Scientific Inc.©
Issue Date	05-Sep-2019
Revision Date	11-Sep-2024
Reason for revision	Initial Release.

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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 Scientific's 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