

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 26-Nov-2023

WAI2 - EGHS - EUROPEAN

Revision Number 3

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

1.1. Product Identifier

Product Name ECBU10BTC, Eutech pH 10.01 Buffer Solution

Product No 01X211205
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

Precautionary Statements

2.3. Other hazards

General Hazards

This product does not contain any known or suspected endocrine disruptors

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

| Component | EC No | CAS No | Weight % | CLP 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 |
| Sodium Carbonate | EEC No. 207-838-8 | 497-19-8 | 0 - 10% | Eye Irrit. 2 (H319) | 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 | - | - | - |
| Sodium Carbonate | 497-19-8 | - | - | - |
| 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 | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention. |
| Skin Contact | Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur. |
| Inhalation | Remove to fresh air. Get medical attention immediately if symptoms occur. |
| Ingestion | Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur. |
| 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 | None reasonably foreseeable |
|-------------------------------------|-----------------------------|

4.3. Indication of any immediate medical attention and special treatment needed

| | |
|--------------------|-----------------------|
| Notes to Physician | Treat symptomatically |
|--------------------|-----------------------|

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 | Ensure adequate ventilation. Use personal protective equipment as required. |
|----------------------|---|

6.2. Environmental precautions

| | |
|---------------------------|--|
| Environmental Precautions | Should not be released into the environment. See Section 12 for additional Ecological Information. |
|---------------------------|--|

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

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation.

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

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

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

| Component | Latvia | Lithuania | Luxembourg | Malta | Romania |
|--------------------|--------------------------|-----------|------------|-------|--|
| Sodium Carbonate | | | | | TWA: 1 mg/m ³ 8 ore STEL: 3 mg/m ³ 15 minute |
| Sodium Bicarbonate | TWA: 5 mg/m ³ | | | | |

| Component | Russia | Slovak Republic | Slovenia | Sweden | Turkey |
|--------------------|---|-----------------|----------|--------|--------|
| Sodium Carbonate | Skin notation MAC: 2 mg/m ³ | | | | |
| 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)

No information available

| 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)

No information available.

| 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
Recommended Filter type: No protective equipment is needed under normal use conditions.
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 | No information available |
| Odor | No information available |
| Odor Threshold | No information available |
| pH | 10.01 |
| PH Range | No information available |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|-------------------------------------|--------------------------|-------------------------|
| Melting point/freezing point | No information available | |
| Boiling Point/Range | No information available | |
| 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 | No information available | |
| 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 | |

9.2. Other information

| | |
|-------------------------|--------------------------|
| Softening Point | No information available |
| Molecular Weight | No information available |
| VOC Content(%) | No information available |
| Density | No information available |
| 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

Unknown Acute Toxicity 0 % of the mixture consists of ingredient(s) of unknown toxicity.

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|--------------------|---------------------------|------------------------------|---|
| Water | LD50 > 90 mL/kg (Rat) | | |
| Sodium Carbonate | LD50 = 4090 mg/kg (Rat) | LD50 > 2000 mg/kg (Rabbit) | LC50 = 2300 mg/m ³ (Rat) 2 h |
| Sodium Bicarbonate | LD50 = 4220 mg/kg (Rat) | | |
| FD & C Blue #1 | LD50 > 2 g/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

Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

| Component | Freshwater Algae | Freshwater Fish | Water Flea |
|--------------------|------------------|---|--|
| Sodium Carbonate | - | LC50: 310 - 1220 mg/L, 96h static (Pimephales promelas) LC50: = 300 mg/L, 96h static (Lepomis macrochirus) | EC50: = 265 mg/L, 48h (Daphnia magna) |
| 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) |
|----------------|---------|-------------------------------|
| FD & C Blue #1 | -6.4 | No data available |

12.4. Mobility in soil

| Component | log Pow |
|---|---------|
| 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 |
| 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 | - |
| Sodium Carbonate | 497-19-8 | 207-838-8 | - | - | X | X | KE-31380 | 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 |
| Sodium Carbonate | 497-19-8 | 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 | - | - | - |
| Sodium Carbonate | 497-19-8 | - | Use restricted. See item 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 = 2 (self classification)

| Component | Germany - Water Classification (AwSV) |
|--|---------------------------------------|
| Sodium Carbonate 497-19-8 (0 - 10%) | WGK1 |
| 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

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/NDSL - 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%

NOEC - No Observed Effect Concentration

PBT - Persistent, Bioaccumulative, Toxic

TWA - Time Weighted Average

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

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50%

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 26-Nov-2023

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

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End of Safety Data Sheet