# 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** 16-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** ECRE002, Eutech 4M KCI (Potassium Chloride) saturated Solution

**Product No** 01X211218
**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**

None

**Signal Word**

None

**Hazard Statements**

None

**Precautionary Statements**

None

**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 % | 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 | 80 - 90% | Not classified | No information available |
| Potassium Chloride | EEC No. 231-211-8 | 7447-40-7 | 10 - 20% | Not classified | No information available |

| Component | CAS No | Specific concentration limits (SCL's) | M-Factor | Component notes |
|---|---|---|---|---|
| Water | 7732-18-5 | - | - | - |
| Potassium Chloride | 7447-40-7 | - | - | - |

## 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 |
|---|---|---|---|---|---|
| Potassium Chloride | TWA: 5.0 mg/m³ | | | | |

| Component | Latvia | Lithuania | Luxembourg | Malta | Romania |
|---|---|---|---|---|---|
| Potassium Chloride | TWA: 5 mg/m³ | TWA: 5 mg/m³ IPRD | | | |

| Component | Russia | Slovak Republic | Slovenia | Sweden | Turkey |
|---|---|---|---|---|---|
| Potassium Chloride | MAC: 5 mg/m³ | | | | |

**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) |
|---|---|---|---|---|
| Potassium Chloride 7447-40-7 ( 10 - 20% ) | | DNEL = 910mg/kg bw/day | | DNEL = 303mg/kg bw/day |

| Component | Acute effects local (Inhalation) | Acute effects systemic (Inhalation) | Chronic effects local (Inhalation) | Chronic effects systemic (Inhalation) |
|---|---|---|---|---|
| Potassium Chloride 7447-40-7 ( 10 - 20% ) | | DNEL = 5320mg/m$^3$ | | DNEL = 1064mg/m$^3$ |

**Predicted No Effect Concentration (PNEC)**
No information available.

| Component | Fresh water | Fresh water sediment | Water Intermittent | Microorganisms in sewage treatment | Soil (Agriculture) |
|---|---|---|---|---|---|
| Potassium Chloride 7447-40-7 ( 10 - 20% ) | PNEC = 0.1mg/L | | PNEC = 1mg/L | PNEC = 10mg/L | |

| Component | Marine water | Marine water sediment | Marine water intermittent | Food chain | Air |
|---|---|---|---|---|---|
| Potassium Chloride 7447-40-7 ( 10 - 20% ) | PNEC = 0.1mg/L | | | | |

**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** Clear

| | |
|---|---|
| **Odor** | Odorless |
| **Odor Threshold** | No information available |
| **PH Range** | 6-7 @ 25 °C |

| **Property** | **Values** | **Remarks • Method** |
|---|---|---|
| **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** | 1.0 g/cm³ @ 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**
**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 ) | | |
| Potassium Chloride | LD50 = 2600 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.

## 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 |
|---|---|---|---|
| Potassium Chloride | EC50: = 2500 mg/L, 72h (Desmodesmus subspicatus) | LC50: = 1060 mg/L, 96h static (Lepomis macrochirus)<br>LC50: 750 - 1020 mg/L, 96h static (Pimephales promelas) | EC50: = 83 mg/L, 48h Static (Daphnia magna)<br>EC50: = 825 mg/L, 48h (Daphnia magna) |

**12.2. Persistence and degradability**

**12.3. Bioaccumulative potential**

**12.4. Mobility in soil**

**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 | - |
| Potassium Chloride | 7447-40-7 | 231-211-8 | - | - | X | X | KE-29086 | 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 |
| Potassium Chloride | 7447-40-7 | 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 | - | - | - |
| Potassium Chloride | 7447-40-7 | - | - | - |

**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) |
|---|---|
| Potassium Chloride<br>7447-40-7 ( 10 - 20% ) | WGK1 |

| Component | France - INRS (Tables of occupational diseases) |
|---|---|
| Potassium Chloride | Tableaux des maladies professionnelles (TMP) - RG 67 |

### 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** | 16-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**