

SAFETY DATA SHEET

Section 1 - Identification

Product Name <u>pH electrode storage solution</u>

Product Code EUT01X211206, HAC26573, EUT01X608201

Address ThermoFisher Scientific Australia Pty Ltd

5 Caribbean Drive, Scoresby VICTORIA 3179, Australia

Emergency Tel. CHEMTREC®

03 9757 4559 or +613 9757 4559

Telephone / Fax Numbers Tel: 1300 735 292

Fax: 1800 067 639 ANZinfo@thermofisher.com

Recommended Use Laboratory chemicals.

Uses advised against This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

This product does not contain any substance(s) subject to Prohibition, Authorization or Restriction. This product does not contain any substance(s) listed on the voluntary National

Code of Practice for Chemicals of Security Concern.

Section 2 - Hazard(s) Identification

Classification under Safe Work Australia

Classified as not hazardous according to criteria of Safe Work Australia.

Physical hazards

E-mail address

No hazards identified

Health hazards

No hazards identified

Environmental hazards

No hazards identified

<u>Label Elements</u> None required

Other information

This product does not contain any known or suspected endocrine disruptors

Section 3 - Composition and Information on Ingredients

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Component	CAS No	Weight %
Water	7732-18-5	76-79
Potassium Chloride	7447-40-7	20-23
Sodium Phosphate, Dibasic	7558-79-4	0-2
Potassium Dihydrogen Phosphate	7778-77-0	0-2

Section 4 - First Aid Measures

Inhalation Remove to fresh air.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes.

Eye ContactRinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

Self-Protection of the First Aider No special precautions required.

First Aid Facilities Eyewash, safety shower and washroom.

Most important symptoms and

effects

No information available.

Notes to Physician Treat symptomatically.

Section 5 - Fire Fighting Measures

Suitable Extinguishing Media

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

Extinguishing media which must not be used for safety reasons

No information available.

Specific Hazards Arising from the Chemical

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

Special protective equipment and precautions for fire fighters

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

Emergency procedures

Ensure adequate ventilation.

Environmental Precautions

Vapors may accumulate to form explosive concentrations. See Section 12 for additional Ecological Information.

Methods for Containment and Clean Up

Clean-up methods - small spillage

Clean-up methods - large spillage

Not applicable, packaged goods.

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Reference to Other Sections

Refer to protective measures listed in Sections 8 and 13.

Section 7 - Handling and Storage

Precautions for Safe Handling

Ensure adequate ventilation.

Conditions for Safe Storage, Including any Incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

AS/NZS 2243.10:2004, Safety in laboratories - Storage of chemicals

Section 8 - Exposure Controls and Personal Protection

Exposure limits

The product does not contain any hazardous materials with occupational exposure limits established.

Biological limit values

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

Exposure Controls Engineering Measures

None under normal use conditions.

Personal protective equipment

Eye Protection Wear safety glasses with side shields (or goggles) (Australian/New Zealand Standard

AS/NZS 1337 - Eye protectors for Industrial applications)

Hand Protection Protective gloves

Glove material	Breakthrough time	Glove thickness	AUS/NZ Standard	Glove comments
Disposable gloves	See manufacturers	-	AS/NZS 2161	(minimum requirement)
	recommendations			

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Skin and body protection Long sleeved clothing

Repiratory Protection Use an AS/NZS 1716 approved respirator if exposure limits are exceeded or if irritation or

other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained in line with AS/NZS 1715 on the use

and maintenance of repiratory protective devices

Recommended Filter type: Particle filter (or AUS/NZ equivalent)

Hygiene MeasuresHandle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls No information available.

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Section 9 - Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance Colorless
Physical State Liquid

Odor None

Odor Threshold No data available pH 6.3 - 6.9

Melting Point/RangeNo data availableSoftening PointNo data availableBoiling Point/Range100 °C / 212 °F

Flash Point Not applicable Method - No information available

Liquid

Liquid

Evaporation Rate No data available Flammability (solid,gas) Not applicable

Explosion Limits No data available

Vapor Pressure No data available

Vapor DensityNo data available(Air = 1.0)Specific Gravity / DensityNo data available

Bulk Density Not applicable

Water Solubility Soluble

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Autoignition TemperatureNo data availableDecomposition TemperatureNo data availableViscosityNo data availableExplosive PropertiesNo information availableOxidizing PropertiesNo information available

Other information

Section 10 - Stability and Reactivity

Reactivity None known, based on information available

Stability Stable under normal conditions.

Conditions to Avoid Heat, flames and sparks.

Incompatible Materials None known.

Hazardous Decomposition Products None under normal use conditions.

Hazardous Polymerization No information available.

Section 11 - Toxicological Information

Information on Toxicological Effects

Product Information

(a) acute toxicity;

OralBased on available data, the classification criteria are not metDermalBased on available data, the classification criteria are not met

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

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	LD50 > 90 mL/kg (Rat)		
Potassium Chloride	LD50 = 2600 mg/kg (Rat)		
Sodium Phosphate, Dibasic	LD50 = 17 g/kg (Rat)		
Potassium Dihydrogen Phosphate	LD50 = 3200 mg/kg (Rat)		LC50 > 0.83 mg/L (Rat) 4 h

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; No data available

(d) respiratory or skin sensitization;

Respiratory No data available Skin No data available

(e) germ cell mutagenicity; No data available

(f) carcinogenicity; No data available

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs No information available.

(j) aspiration hazard; No data available

Symptoms / effects,both acute and No information available delayed

Section 12 - Ecological Information

Ecotoxicity effects

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Potassium Chloride	LC50: = 1060 mg/L, 96h	EC50: = 83 mg/L, 48h	EC50: = 2500 mg/L, 72h	
	static (Lepomis	Static (Daphnia magna)	(Desmodesmus	
	macrochirus)	EC50: = 825 mg/L, 48h	subspicatus)	
	LC50: 750 - 1020 mg/L,	(Daphnia magna)		
	96h static (Pimephales			
	promelas)			

Persistence and Degradability

Persistence Soluble in water, Persistence is unlikely, based on information available.

Bioaccumulative Potential Bioaccumulation is unlikely

Mobility The product is water soluble, and may spread in water systems. Will likely be mobile in the

environment due to its water solubility Highly mobile in soils

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors

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Persistent Organic Pollutant Ozone Depletion Potential This product does not contain any known or suspected substance This product does not contain any known or suspected substance

Section 13 - Disposal Considerations

Waste from Residues/Unused

Products

Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with all federal, E.P.A., state and local regulations. Assure conformity with all applicable regulations.

Contaminated Packaging

Empty remaining contents. Dispose of in accordance with local regulations. Do not re-use

empty containers.

Other Information

Chemical wastes should be disposed through a licensed commercial waste collection service.

Section 14 - Transport Information

IMDG/IMO Not regulated

ADG Not regulated

IATA Not regulated

Environmental hazards No hazards identified

Special Precautions No special precautions required

Additional information None known

Section 15 - Regulatory Information

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

National Regulations Australia

See section 8 for national exposure control parameters.

Standard for the Uniform Scheduling of Medicines and Poisons

Classified as a scheduled poison according to the Standard for Uniform Scheduling of Medicines and Poisons.

Component	Standard for the Uniform Scheduling of Medicines and Poisons
Potassium Chloride - 7447-40-7	Schedule 4 listed - in oral preparations for human therapeutic use except: a) when containing <=550
	mg of Potassium chloride per dosage unit, or b) in preparations for oral rehydration therapy, or c) in
	preparations for oral use for bowel cleansing prior to diagnostic medical and surgical procedures, or d)
	in preparations for enteral feeding
Sodium Phosphate, Dibasic - 7558-79-4	Schedule 5 listed - being the carbonate, silicate or phosphate salts of sodium or potassium alone or in any combination: in solid orthodontic device cleaning preparations, the pH of which as an in-use aqueous solution is >11.5, in solid automatic dishwashing preparations, the pH of which in a 500 g/L aqueous solution or mixture is >11.5 but <=12.5;in other solid preparations, the pH of which in a 10 g/L aqueous solution is >11.5, or in liquid or semi-solid preparations, the pH of which is >11.5, unless: in
	food additive preparations for domestic use, or in automatic dish washing preparations for domestic use with a pH >12.5; except when separately specified in these Schedules Schedule 5 listed - being the Carbonate, Silicate or Phosphate salts of Sodium or Potassium alone or in any combination: in solid

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	orthodontic device cleaning preparations as an in-use aqueous solution;in solid automatic dishwashing preparations in a 500 g/L aqueous solution or mixture but with pH <=12.5;in other solid preparations in a 10 g/L aqueous solution, or in liquid or semi-solid preparations, unless in food additive preparations for domestic use, or in automatic dish washing preparations for domestic use with a pH >12.5;except when separately specified in these Schedules Schedule 6 listed - being the carbonate, silicate or phosphate salts of sodium or potassium alone or in any combination for non-domestic use: in solid automatic dishwashing preparations, the pH of which in a 500 g/L aqueous solution or mixture is >12.5, or in liquid or semi-solid automatic dishwashing preparations, the pH of which is >12.5 Schedule 10 listed
Potassium Dihydrogen Phosphate - 7778-77-0	Schedule 10 listed

Australian Industrial Chemicals Introduction Scheme (AICIS)

Australian Industrial Chemicals Introduction Scheme (AICIS)	Additional information
Present	-
	Chemicals Introduction Scheme (AICIS) Present Present Present

Australian - Illicit Drug Precursors/Reagents Substance List

This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

Chemicals of Security Concern

This product does not contain any substance(s) listed on the voluntary National Code of Practice for Chemicals of Security Concern

National pollutant inventory Not applicable

Prohibition or notification/licensing requirements

Shown below are details of specific prohibition/notifications or licencing requirements when they apply.

This product does not contain any substance(s) subject to Prohibition, Authorization or Restriction.

International Inventories

Component	AICS	NZIoC	EINECS	ELINCS	TSCA	DSL	NDSL	PICCS	ENCS	ISHL	IECSC	KECL
Water	Х	Х	231-791-2	-	Х	Х	-	Х	Х		Х	KE-35400
Potassium Chloride	Х	Х	231-211-8	-	Х	Х	-	Х	Х	Х	Х	KE-29086
Sodium Phosphate, Dibasic	Х	Х	231-448-7	-	Х	Х	-	Х	Х	Х	Х	KE-12344
Potassium Dihydrogen Phosphate	Х	Х	231-913-4	-	Х	Х	-	Х	Х	Х	Х	KE-28622

Legend: X - Listed. '-' - Not Listed. KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

International Regulations

Ozone Depletion Potential This product does not contain any known or suspected substance

Persistent Organic Pollutant This product does not contain any known or suspected substance

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Rotterdam Convention (PIC) Not applicable

Basel convention on the control of transboundary movements of hazardous wastes and their dispoal Not applicable.

Component	CAS No	OECD HPV	Restriction of Hazardous Substances (RoHS)	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements
Water	7732-18-5	Listed	Not applicable	Not applicable	Not applicable
Potassium Chloride	7447-40-7	Listed	Not applicable	Not applicable	Not applicable
Sodium Phosphate, Dibasic	7558-79-4	Listed	Not applicable	Not applicable	Not applicable
Potassium Dihydrogen Phosphate	7778-77-0	Listed	Not applicable	Not applicable	Not applicable

Authorisation/Restrictions according to EU REACH

Not applicable

Section 16 - Other Information

Legend

AICS - Australian Inventory of Chemical Substances

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

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

IECSC - Chinese Inventory of Existing Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

MARPOL - International Convention for the Prevention of Pollution from Ships

NZS 5433:2020 - Transport of Dangerous Goods on Land

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50%
WEL - Workplace Exposure Limit
DNEL - Derived No Effect Level
POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

VOC - (Volatile Organic Compound)

NZIoC - New Zealand Inventory of Chemicals

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

ENCS - Japanese Existing and New Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

CAS - Chemical Abstracts Service

ACGIH - American Conference of Governmental Industrial Hygienists

Predicted No Effect Concentration (PNEC)

IMO/IMDG - International Maritime Organization/International Maritime

Dangerous Goods Code

ADG - Australian Code for the Transport of Dangerous Goods by Road and Rail

OECD - Organisation for Economic Co-operation and Development

LC50 - Lethal Concentration 50% ATE - Acute Toxicity Estimate

RPE - Respiratory Protective Equipment NOEC - No Observed Effect Concentration

BCF - Bioconcentration factor

PBT - Persistent, Bioaccumulative, Toxic

Key literature references and sources for data

https://echa.europa.eu/information-on-chemicals

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

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Physical hazards
Health Hazards
Calculation method
Environmental hazards
Cn basis of test data
Calculation method

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

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Revision Summary

Update to GHS format.

This Safety Data Sheet (SDS) is prepared in accordance to and complies with the requirements of Safe Work Australia - Work Health and Safety Regulations (WHS Regulations).

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

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