

Material Safety Data Sheet

26/08/2014

1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** 525-3; KCl (internal filling solution for pH combination electrode)
- **Article Code:** 3999960023
- **Application:** for laboratory and industrial use
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 HORIBA Instruments (Singapore) Pte Ltd
 83 Science Park Drive #02-02A,
 The Curie, Singapore 118258
 Contact No.: +65 6908 9660

2 Hazards identification

- **Classification of the substance or mixture**
 The product is not classified hazardous according to the Globally Harmonized System (GHS).
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
 Symbols (S) - Not applicable
 R-phrases (S) - Not applicable
- **Information concerning particular hazards for human and environment:**
 The product does not have to be labelled due to the calculation procedure of international guidelines.
- **Classification system:**
 The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- **Label elements**
- **Labelling according to EU guidelines:**
 Observe the general safety regulations when handling chemicals.
 The product is not subject to identification regulations according to directives on hazardous materials.
- **GHS label elements** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Components:**

7447-40-7	potassium chloride	Nearly 25%
7732-18-5	water, distilled, conductivity or of similar purity	Nearly 75%

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· **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

4 First aid measures

- **General information:** No special measures required.
- **After inhalation:**
Remove the victim to fresh air, and make him blow his nose and gargle. Refer for medical attention.
- **After skin contact:** Wash the affect areas under running water.
- **After eye contact:**
Immediately rinse the affected eyes with running water for at least 15 minutes, and refer for medical attention.
- **After swallowing:** Give the victim water. If necessary, get medical attention.

5 Firefighting measures

- **Suitable extinguishing agents:** This product is noncombustible.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow product to reach sewage system or any water course.
- **Methods and material for containment and cleaning up:**
Sweep up and place in a vessel. Flush residual area with water.
- **Reference to other sections** No dangerous substances are released.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Keep receptacles tightly sealed.
Keep away from heat and direct sunlight.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

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8 Exposure controls/personal protection

- **Additional information about design of technical systems:**
Provide good ventilation. Make available washbasin and eye wash near the work area.
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Suitable respiratory protective device recommended.
- **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Goggles recommended during refilling.
- **Body protection:** Use protective suit.

9 Physical and chemical properties

- | | |
|--|---|
| · General Information | |
| · Appearance: | |
| Form: | Liquid |
| Color: | Colorless |
| · Odor: | Odorless |
| · Change in condition | |
| Melting point/Melting range: Undetermined. | |
| Boiling point/Boiling range: Undetermined. | |
| · Flash point: | Not applicable. |
| · Auto igniting: | Product is not selfigniting. |
| · Danger of explosion: | Product does not present an explosion hazard. |
| · Density: | Not determined. |
| · Solubility in / Miscibility with | |
| Water: | Fully miscible. |

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· **Other information** No further relevant information available.

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

7447-40-7 potassium chloride

Oral	LD50	383 mg/kg (mouse)
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· **Primary irritant effect:**

· **on the skin:** No irritant effect.

· **on the eye:** No irritating effect.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

12 Ecological information

- **Acquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Generally not hazardous for water

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:** Must be specially treated adhering to official regulations.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

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14 Transport information

· UN-Number · DOT, ADR, ADN, IMDG, IATA	Void
· UN proper shipping name · DOT, ADR, ADN, IMDG, IATA	Void
· Transport hazard class(es) · DOT, ADR, ADN, IMDG, IATA · Class	Void
· Packing group · DOT, ADR, IMDG, IATA	Void
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	Check the containers are thgthly sealed. Handle carefully so that they will not be damaged by falling or dropping. Keep away from water.
· UN "Model Regulation":	Not applicable.

15 Regulatory information

· Sara	
· Section 355 (extremely hazardous substances):	None of the ingredients is listed.
· Section 313 (Specific toxic chemical listings):	None of the ingredients is listed.
· TSCA (Toxic Substances Control Act):	All ingredients are listed.
· Proposition 65	
· Chemicals known to cause cancer:	None of the ingredients is listed.
· Chemicals known to cause reproductive toxicity for females:	None of the ingredients is listed.
· Chemicals known to cause reproductive toxicity for males:	None of the ingredients is listed.
· Chemicals known to cause developmental toxicity:	None of the ingredients is listed.

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Trade name: 300 (INTERNAL SOL. FOR REF ELECTRODE)

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· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Product related hazard informations:**

Observe the general safety regulations when handling chemicals.

The product is not subject to identification regulations according to directives on hazardous materials.

· **National regulations:**

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

16 Other information

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· **Division issuing MSDS:** Water Quality Instruments division.

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent