

# Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)

YOKOGAWA

Part No: K9220XH/ K9084KQ/ K9084KS/ K9084LP Rev.1.03

Revision date: 28th November 2025

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

**1.1 Product identifier** : 3.3M KCl solution

**Substance name** : Potassium Chloride  
**CAS No.** : 7447-40-7  
**EC No** : 231-211-8

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

Filled into reference electrode for pH/ORP sensor

**1.3 Details of the supplier of the safety data sheet:**

### Manufacture:

**Name** Yokogawa Electric Corporation  
**Address** 2-9-32 Nakacho, Musashino-shi, Tokyo, 180-8750 Japan  
**Phone** 81-422-52-5649 (Analyzer Marketing Dept., Sensing Center, YPHQ)  
**Website** <http://www.yokogawa.com>

### Importer (only in Europe):

**Name** Yokogawa Europe B.V. (Regional Headquarters in EU)  
**Address** Euroweg 2 , 3825 HD Amersfoort, The Netherlands  
**Postal Address** P.O. Box 163, 3800 AD Amersfoort, The Netherlands  
**Phone** +31-(0)88-4641000  
**Website** [www.yokogawa.com/eu](http://www.yokogawa.com/eu)  
**E-Mail** [info@nl.yokogawa.com](mailto:info@nl.yokogawa.com)

**1.4 Emergency telephone number (only in Europe):**

+31-88-4641000

## SECTION 2: Hazards identification

**2.1 Classification of the substance or mixture:**

Not classified according to Regulation (EC) No 1272/2008 [CLP]

**2.2 Label elements**

**Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]**

**Product identifier:** 3.3M KCl solution

**Substance name** : Potassium Chloride  
**CAS No.** : 7447-40-7  
**EC No** : 231-211-8

**Hazard pictograms** : Not classified  
**Signal word** : Not classified  
**Hazard statements** : Not classified  
**Precautionary statements** : Not classified  
**Supplemental Hazard information (EU)** : Not applicable.

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## 2.3 Other hazards

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1 Mixtures

#### Description of the mixture:

The concentrations of substances including non-hazardous components are listed below.

Substance name	CAS No.	EC No.	Concentration	Classification according Regulation (EC) No. 1272/2008
Potassium chloride	7447-40-7	231-211-8	Approx. 20% (3.3mol/l)	Not Classified
Water	7732-18-5	231-791-2	Approx. 80%	Not Classified

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**General information** : No information available.  
**Following inhalation** : Move into fresh air and rinse nose and mouth with water.  
**Following skin contact** : Wash with water.  
**Following eye contact** : Rinse opened eye for several minutes under running water.  
**Following ingestion** : Rinse out mouth and then drink plenty of water.  
In case of persistent symptoms consult doctor.

### 4.2 Most important symptoms and effects, both acute and delayed

No special information available

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

No special information available

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media:

**Suitable extinguishing media** : Water, CO<sub>2</sub>, foam, extinguishing powder.

**Unsuitable extinguishing media** : No information available

### 5.2 Special hazards arising from the substance or mixture

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

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## 5.3 Advice for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. Special protective equipment is not required.

### 6.2 Environmental precautions:

Be careful not discharged to surface or ground water.

### 6.3 Methods and material for containment and cleaning up

**For containment** : Put in suitable, closed containers or plastic bags for disposal.

**For cleaning up** : Wipe with waste clothes or papers, and wash the spill site with water.

### 6.4 Reference to other sections

For disposal refer to section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

**Protective measures** : No special measures required.

**Advice on general occupational hygiene** : Not to eat, drink and smoke in work areas.

### 7.2 Conditions for safe storage, including any incompatibilities

**Further information on storage conditions:**

Keep in cool and dried place, away from direct sunlight.

### 7.3 Specific end uses

Refer to section 1.

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Not applicable.

### 8.2 Exposure controls

No special measures required.

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## Personal protective equipment:

**Eye / Face protection** : Safety glasses recommended.

**Skin protection** : Protective gloves impervious to water recommended.

**Respiratory protection** : Not required.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

**Physical state** : Liquid

**Colour** : Colourless and clear

**Odour** : Odourless

**pH** : 4.0 ~ 8.0 (25 degrees C)

**Melting point / freezing point** : No data available

**Initial boiling point /boiling range** : No data available

**Flash point** : No data available

**Evaporation rate** : No data available

**Flammability (solid, gas)** : No data available

#### Upper/lower flammability or explosive limits

**Upper** : No data available

**Lower** : No data available

**Vapour pressure** : No data available

**Vapour density** : No data available

**Relative density** : No data available (Approx.1.15~1.17)

**Solubilities** : Water miscible.

**Partition coefficient(n-octanol/water)** : No data available

**Auto-ignition temperature** : No data available

**Decomposition temperature** : No data available

**Viscosity** : No data available

**Explosive properties** : No data available

**Oxidising properties** : No data available

### 9.2 Other information:

**Physical hazards:** No data available

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## SECTION 10: Stability and reactivity

**10.1 Reactivity** : No data available

**10.2 Chemical stability** : Stable under recommended storage conditions. Refer to section7.

**10.3 Possibility of hazardous reactions** : No data available

**10.4 Conditions to avoid** : Extremes of temperature and direct sunlight.  
It's not hazardous but may reduce the quality.

**10.5 Incompatible materials** : No data available.

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**10.6 Hazardous decomposition products** : No known hazardous decomposition products.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

(a) acute toxicity ; ATEmix(oral) = no data available  
ATEmix (dermal) = no data available  
ATEmix (Inhalation) = no data available

(Information of single component)

Potassium Chloride Oral LD50>2600 mg/kg(RAT)

(b) skin corrosion/irritation ; No data available  
(c) serious eye damage/irritation ; No data available  
(d) respiratory or skin sensitization ; No data available  
(e) germ cell mutagenicity ; No data available  
(f) carcinogenicity ; No data available  
(g) reproductive toxicity ; No data available  
(h) STOT-single exposure ; No data available  
(i) STOT-repeated exposure ; No data available  
(j) aspiration hazard ; No data available

### 11.2 Other information

When used and handled according to specifications, the product does not have any harmful effects.

## SECTION 12: Ecological information

### 12.1 Toxicity:

**Aquatic toxicity** :No data available

(Information of single component)

Potassium Chloride

Algae/aquatic plants :EC50:Desmodesmus subspicatus 2500 mg/L 72 h

Fish: LC50 :Lepomis macrochirus 1060 mg/L 96 h

EC50 :Daphnia magna 825 mg/L 48 h

**12.2 Persistence and degradability** : No information available

**12.3 Bioaccumulative potential** : No information available

**12.4 Mobility in soil** : No information available

**12.5 Results of PBT and vPvB assessment** : Not applicable.

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## 12.6 Other adverse effects:

No ecological problems are to be expected when the product is handled and used with due care and attention.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product / Packaging disposal:

Disposal should be in accordance with applicable regional, national and local laws and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose the special waste.

Empty ampoules can be treated like household refuse.

#### Waste codes / waste designations according to EWC:

16 03 04 / inorganic wastes other than those mentioned in 16 03 03  
(cf.16 03 03; inorganic wastes containing dangerous substances)

## SECTION 14: Transport information

Non-hazardous material. Not subject to transport regulations

	Land transport (ADR/RID)	Inland waterway transport (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN No.	-	-	-	-
14.2 UN Proper shipping name	Non-hazardous material	Non-hazardous material	Non-hazardous material	Non-hazardous material
14.3 Transport hazard class(es)	-	-	-	-
Hazard label(s)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	Not applicable	Not applicable	Not applicable	Not applicable

### 14.6 Special precautions for user

Not applicable

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

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## SECTION 15: Regulatory information

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

Not applicable.

The material is not subject to classification according to regulation EC 1272/ 2008 [CLP].

Observe the normal safety regulations when handling chemicals.

### 15.2 Chemical Safety Assessment:

For this product a chemical safety assessment is not required.

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## SECTION 16: Other information

### 16.1 Indication of changes

Revised on 28th November 2025 (Rev.1.03): Change of department name in Section 1.3

Revised on 24th December 2020 (Rev.1.02): Change of manufacture's phone number in Section 1.3

Revised on 4th April 2017 (Rev.1.01): Change of product identifier in Section 1.1 and Section 2.2

Addition of Part No K9084KQ, K9084KS and K9084LP

Change of manufacture's phone number in Section 1.3

Correction of erroneous description in Section 3.1

Addition of reference SDS (No.32888) in Section16.2

Issued on 31st March 2016 (Rev.1.00)

### 16.2 Key literature references and sources for data

SDS provided by Kanto Chemical Co., Inc.

No.32888 3.3mol/l Potassium chloride solution (3th February 2009, 8th June 2017)

SDS provided by Toko Chemical Laboratory, Ltd (No. A0033)

SDS provided by Wako Pure Chemical Industries, Ltd

W01W0116-0354 JGHEEN Potassium Chloride (Version 1.01)

W01W0116-2038 JGHEEN 3.3mol/l Potassium Chloride Solution (Version 1)

### 16.3 Further information:

The information provided in this Safety Data Sheet is based on the present state of knowledge and is believed to be correct. Its purpose is to characterize the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.