

# SAFETY DATA SHEET

According to 1907/2006/EC, article 31 of the EU REACH Regulation

## 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY

- 1.1 Product identifier** Electrolytes in sensors  
**1.2 Relevant identified uses of the substance or mixture and uses advised against**  
Professional use, contents inside sensors  
**1.3 Details of the supplier of the safety data sheet Company identification**  
**Company** Yokogawa Process Analyzers Europe B.V.  
Euroweg 2  
3825 HD Amersfoort  
The Netherlands  
Phone: +31 (0)88 4641000  
E-mail: info@nl.yokogawa.com  
www.yokogawa-europe.com/eu  
**1.4 Emergency phone** +31 (0)88 4641000

## 2. HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture**  
Classification (EC 1272/2008):  
- Physical and chemical hazards: not classified  
- Human health: not classified  
- Environment: not classified  
**2.2 Label elements** Label in accordance with (EC) No. 1272/2008. No pictogram required.  
**2.3 Other hazards** This product does not contain any PBT or vPvB substances.  
No specific hazards are identified since material is contained in sensor.  
The amounts and concentration in de sensor are so low that no specific hazards are identified.  
Danger classification: Potential hazards only occur by breakage of the sensor.  
Hazards to man and the environment: Take care to prevent cuts and or injury due to broken glass.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1 Substances** Not applicable  
**3.2 Mixtures**

**Reference, combined redox or refill sensors KCl Solution 1-3.3M**, (viscosities)

Components	Content	Formula	Symbol	Hazard	Einecs nr	CAS nr
Potassium Chloride (≥99.5%, p.a., ACS, ISO)	<40%	KCl	n.a.	Not Classified	231-211-8	7447-40-7
Hydroxy Ethyl Cellulose	<10%		n.a.	Not Classified	polymer	9004-62-0
Water	≥50%	H <sub>2</sub> O	n.a.	Not Classified	231-791-2	7732-18-5

**Combined pH or single pH sensors, KCl Solution 1M - Sat. KCl**

Components	Content	Formula	Symbol	Hazard	Einecs nr	CAS nr
Potassium Chloride (≥99.5%, p.a., ACS, ISO)	<70%	KCl	n.a.	Not Classified	231-211-8	7447-40-7
Carboxy Methyl Cellulose/ Hydroxy Ethyl Cellulose	<10%		n.a.	Not Classified	polymer	9004-32-4/ 9004-62-0
Potassium dihydrogen Phosphate (≥99.5%)	<0.1%	KH <sub>2</sub> PO <sub>4</sub>	n.a.	Not Classified	231-913-4	7778-77-0
Water	≥19.9%	H <sub>2</sub> O	n.a.	Not Classified	231-791-2	7732-18-5

**K1220QT**

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**Edition:**  
3<sup>rd</sup>

**Page**  
**1 of 4**

# SAFETY DATA SHEET

According to 1907/2006/EC, article 31 of the EU REACH Regulation

## Combined pH/sodium or SM23 Sodium sensors (1-3.3M)

Components	Content	Formula	Symbol	Hazard	Einecs nr	CAS nr
Potassium Chloride (≥99.5%, p.a., ACS, ISO)	<20%	KCl	n.a.	Not Classified	231-211-8	7447-40-7
Potassium dihydrogen Phosphate (≥99.5%)	<10%	KH <sub>2</sub> PO <sub>4</sub>	n.a.	Not Classified	231-913-4	7778-77-0
Potassium Hydroxide	<2.5% <0.5% SM23	KOH	 GHS05  GHS07	H290 H302 H214	215-181-3	1310-58-3
Carboxy Methyl Cellulose/ Hydroxy Ethyl Cellulose	<10%		n.a.	Not Classified	polymer	9004-32-4/ 9004-62-0
Sodium Chloride (≥99.0%)	<5%	NaCl	n.a.	Not Classified	231-598-3	7647-14-5
Water	≥52%	H <sub>2</sub> O	n.a.	Not Classified	231-791-2	7732-18-5

## Bridge KCl/KNO<sub>3</sub> sensors

Components	Content	Formula	Symbol	Hazard	Einecs nr	CAS nr
Potassium Chloride (≥99.5%, p.a., ACS, ISO)	<10%	KCl	n.a.	Not Classified	231-211-8	7447-40-7
Potassium Nitrate (≥99.0%)	<25%	KNO <sub>3</sub>	 GHS03	H272	231-818-8	7757-79-1
Sodium Nitrate (≥99.0%)	<2%	NaNO <sub>3</sub>	 GHS03  GHS07	H319 H272	231-554-3	7631-99-4
Hydroxy Ethyl Cellulose	<10%		n.a.	Not Classified	polymer	9004-62-0
Water	±53%	H <sub>2</sub> O	n.a.	Not Classified	231-791-2	7732-18-5

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

After inhalation: Not applicable.

After skin contact: Wash with water.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: 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 additional information available

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

Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media Water, CO<sub>2</sub>, foam, powder.

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

Combustion products, resulting gases: Solutions are not combustible.

**K1220QT**

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3<sup>rd</sup>

**Page**

**2 of 4**

# SAFETY DATA SHEET

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Protective equipment: No special measures required.

Special risks: When water is evaporated the remaining's may result in toxic fumes.

**5.3 Advice for firefighters** Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions:

**6.1.1 For non-emergency personnel** Avoid contact with skin and eyes.

**6.1.2. For emergency responders** Avoid contact with skin and eyes.

**6.2. Environmental precautions** Avoid release to the environment.

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

Take up with liquid absorbing material. Forward for disposal rinse or clean with water.

**6.4. Reference to other sections** For further information refer to section 13.

## 7. HANDLING AND STORAGE

**7.1. Precautions for safe handling** No specific instructions are required since material is contained in sensor.

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

No specific instructions are required since material is contained in sensor.

**7.3. Specific end use(s)** Laboratory use. Industrial use in pH- and pNa-sensors.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**8.1. Control parameters** No specific requirements are applicable since material is contained in sensor.

### 8.2. Exposure controls

**8.2.1 Appropriate engineering controls** No specific requirements are applicable since material is contained in sensor.

### 8.2.2 Individual protection measures, such as personal protective equipment

No specific requirements are applicable since material is contained in sensor.

**8.2.3 Environmental exposure controls** Avoid release to the environment.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

Appearance Liquid (viscosities).

Smell Odorless.

pH 4-8.

**9.2. Other information** Not applicable.

## 10. STABILITY AND REACTIVITY

**10.1 Reactivity** None under recommended storage and handling conditions (see section 7).

**10.2 Chemical stability** Stable under recommended storage and handling conditions (see section 7).

**10.3 Possibility of hazardous reactions** None under recommended storage and handling conditions (see section 7).

**10.4 Conditions to avoid** No particular information available.

**10.5 Incompatible materials** Not applicable.

**10.6 Hazardous decomposition products** None

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute toxicity: Not applicable.

Primary effect on the skin and eye: Possible irritation.

After swallowing: Not applicable

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

## 12. ECOLOGICAL INFORMATION

**K1220QT**

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3<sup>rd</sup>

**Page**  
**3 of 4**

# SAFETY DATA SHEET

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<b>12.1 Toxicity</b>	No ecological problems are to be expected when the product is handled and used with due care and attention.
<b>12.2 Persistence and degradability</b>	Not applicable.
<b>12.3 Bioaccumulative potential</b>	Not applicable.
<b>12.4 Mobility in soil</b>	Not applicable.
<b>12.5 Results of PBT and vPvB assessment</b>	Not applicable.
<b>12.6 Other adverse effects</b>	None.
<b>13. DISPOSAL CONSIDERATIONS</b>	
<b>13.1 Waste treatment methods</b>	Dispose contaminated wipes, absorbing materials and residual product material according to regulations.
<b>14. TRANSPORT INFORMATION</b>	
Non-hazardous material. Not subject to transport regulations.	
<b>15. REGULATORY INFORMATION</b>	
<b>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	
Danger classification:	Not applicable.
List of relevant Risk phrases:	Not applicable.
List of relevant Safety phrases:	Not applicable.
Designation according to EC guidelines:	The material is not subject to classification according to regulation EC 1272/ 2008 (CLP)
Observe the normal safety regulations when handling chemicals.	
<b>15.2. Chemical safety assessment</b>	No chemical safety assessment has been carried out.
<b>16. OTHER INFORMATION</b>	
<b>16.1 Indication of changes</b>	Revised on 11th November 2022: - Update revision date. - Add grades to components. - Add water to components
<b>16.2 Further information</b>	The above information 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. The material safety data sheets will be available in other languages on our website.

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