

MATERIAL SAFETY DATA SHEET

ACCORDING TO DIRECTIVE

91/155/EEG-2001/58/EC

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

Identification of the substance / preparation:

K1220QP **KOH-SOLUTION**

Use of the substance / preparation: Electrolyte for pH / Redox sensors

Sensor types or products: DO30 / Floating Ball / Accessory kits for DO30

Company identification: Yokogawa Europe BV Euroweg 2 3825 HD Amersfoort The Netherlands
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2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	Content	Formula	symbol letters	R phrases	EINECS nr.	CAS nr.
Potassium Hydroxide	<10%	KOH	C	R22,R35	215-181-3	1310-58-3
EDTA	~10%	C ₁₀ H ₁₆ N ₂ O ₈	Xi	R36	200-449-4	60-00-4

3. HAZARDS IDENTIFICATION

Danger classification:



C Corrosive



Xi Irritant

Hazards to man and the environment:

R22: Harmful if swallowed.

R35: Causes severe burns.

R36: Irritating to eyes.

4. FIRST AID MEASURES

General information: Instantly remove any clothing soiled by the product.

After inhalation: In case of unconsciousness bring patient into stable side position for transport.

After skin contact: Instantly wash with water and soap and rinse thoroughly.

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

After swallowing: Drink copious amounts of water and provide fresh air. Do not induce vomiting. Instantly call for doctor.

**Consult a doctor if victim is feeling unwell.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Water, CO₂, foam, powder.Combustion products, resulting gases: CO₂, CO

Protective equipment: Wear self contained breathing apparatus in danger zone.

Special risks: Potassium hydroxide emits toxic fumes under fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with skin and eyes.

Methods for cleaning up: Cover with dry lime or soda ash. Pick up and forward for disposal.

7. HANDLING AND STORAGE

Handling: Do not breathe vapor. Do not get fluid on skin, on clothing or in eyes.

Storage: Keep container tightly closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit values: No further data.

Occupational exposure controls: The usual precautionary measures should be adhered to in handling the chemicals.

Respiratory protection: Use material in fume hood only.

Hand, eye, skin protection: Wear protective gloves, safety glasses and protective work clothing.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid
Smell	Odorless
pH	13
Boiling point/boiling range	100° C
Solubility in water	100 % soluble
Relative density	1.1 kg/l

10. STABILITY AND REACTIVITY

Conditions and materials to avoid: Strong oxidizing agents.
Hazardous decomposition products: None.

11. TOXICOLOGICAL INFORMATION

Acute toxicity: Harmful if swallowed or inhaled; KOH LD-50 (oral, rat): 273 mg/kg.
Primary effect on the skin and eye: Severe burns.
After swallowing: Results in burns in esophagus and stomach, burning sensation, coughing, wheezing nausea, vomiting.

12. ECOLOGICAL INFORMATION

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

13. DISPOSAL CONSIDERATIONS

Dispose waste material, contaminated wipes, absorbing materials and residual product material according to regulations for chemical waste.

14. TRANSPORT INFORMATION

Not subject to transport regulations.

15. REGULATORY INFORMATION

Danger classification:  C Corrosive  Xi Irritant

List of relevant Risk phrases:
R22: Harmful if swallowed.
R35: Causes severe burns.
R36: Irritating to eyes.

List of relevant Safety phrases:
S20: When using do not eat or drink.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39: Wear suitable protective clothing, gloves and glasses.
S45: In case of accident or if you feel unwell, seek medical advice immediately.
S60: This material and its container must be disposed of as hazardous waste.

Designation according to EC guidelines:

The material is not subject to classification according to EC lists and other sources of literature known to us. Observe the normal safety regulations when handling chemicals.

Water hazard class 1: slightly hazardous for water. Do not allow to enter waters, waste water or soil.

16. OTHER INFORMATION

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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