

# pH Buffers

## Safety Data Sheet

**Buffer pH 4.0, pH 6.86, pH 9.18**  
**Yokogawa Corporation of America**

### Section 1, Identification

PRODUCT: Buffer pH 4.01, Buffer pH 6.86, Buffer pH 9.18,

PART NUMBERS:

M1100EU, pH Buffer 4.01. pH 6.86, pH 9.18, each in 500 mL (Buffer Kit)

M1263VM, pH Buffer 4.01 in 3.8 L                      M1200HQ pH Buffer 4.01 in 20 L

M1263VN pH Buffer 6.86 in 3.8 L                      M1200HR pH Buffer 6.86 in 20 L

M1263VP pH Buffer 9.18 in 3.8 L                      M1200HS, pH Buffer 9.18, in 20 L

recommended use    pH reference standard.

restrictions on use    for laboratory use

### Section 2, Hazard(s) identification

Classification under 2012 OSHA Hazardous Communication Standard (29 CFR 1910.1200)

Based on available data, the classification criteria are not met (not hazardous).

label elements            none required; PPE icons, gloves and apron, as in Section 8.

hazards not otherwise classified    none known

### Section 3, Composition/information on ingredients

Buffer	Component	CAS-No	Weight %
All	Water	7732-18-5	99 +
pH 4.01	Potassium Acid Phthalate	877-24-7	1
pH 6.86	Monopotassium Phosphate	7778-77-0	0.3
pH 6.86	Disodium Phosphate	7758-75-4	0.3
pH 9.18	Sodium Borate	1309-96-4	0.4

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Buffer	Component	CAS-No	Weight %
pH 4.01	Red #40	68583-95-9	0.0005
pH 9.18			
pH 6.86	Yellow #6	2983-94-0	0.0005
pH 9.18	Blue #1	3844-45-9	0.0003
All	Proprietary preservative	N/A	0.00008

### Section 4, First-aid measures

Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects:

Repeated or prolonged exposure is not known to aggravate any medical condition.

Eye Contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention if irritation persists.

Skin Contact: Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.

Ingestion: Do not induce vomiting. Obtain medical attention.

Most important symptoms/effects: None reasonably foreseen.

Notes to Physician: Treat symptomatically

### Section 5, Fire-fighting measures

Suitable Extinguishing Media: Substance is nonflammable; use appropriate means to extinguish surrounding fire. Unsuitable Extinguishing Media: N/A

Flash Point, Auto ignition Temperature, Explosion Limits: Not applicable

Sensitivity to Mechanical Impact, Sensitivity to Static Discharge: Not applicable

Specific Hazards/Hazardous Combustion Products: Thermal decomposition can lead to release of irritating gases and vapors.

### Section 6, Accidental release measures

Personal Precautions: Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

Environmental Precautions: Should not be released into the environment. See Methods for Containment and Cleanup: Soak up with inert absorbent material.

Keep in suitable, closed containers pending a waste disposal evaluation.

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### Section 7, Handling and storage

Handling: Avoid contact with skin and eyes.

Storage: Keep container tightly closed in a cool, well-ventilated place.

Storage Code: Green - general chemical storage

### Section 8, Exposure controls/personal protection

Skin and body protection: Wear appropriate protective gloves and clothing to prevent skin exposure.

Hygiene Measures Practice good industrial hygiene and safety measures.

Personal Protective Equipment (PPE): impervious gloves, apron or lab coat.



### Section 9, Physical and chemical properties

Formula: See Section 3

Vapor Pressure: No data available

Molecular Weight: No data available

Evaporation Rate (BuAc=1): No data available

Appearance: red, pH 4; yellow-orange, pH 6.86; violet, pH 9.18

Vapor Density (Air=1): No data available

Odor: None

Specific Gravity: Approx. 1

Solubility in Water: Soluble; Viscosity: as water

pH: as listed in section 3

Melting Point: Estimated 0° C

Auto ignition Temp, Decomp. Temp, Flash Point, Flammable Limits: N/A

Boiling Point: 100° C

### Section 10, Stability and reactivity

Reactive Hazard: None known.

Stability: Stable. Keep container closed when not in use.

Conditions to Avoid: Excess heat, air exposure, or freezing.

Incompatible Materials None known

Hazardous Decomposition Products: Excess heat or flames can lead to release of irritating gases and vapors

Hazardous Polymerization: does not occur.

Hazardous Reactions: None under normal use.

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### Section 11, Toxicological information

Component	ACGIH TLV	OSHA PEL	Other
Potassium Acid Phthalate	Not listed	Not listed	Eye irritant
Monopotassium Phosphate	Not listed	Not listed	N/A
Disodium Phosphate	Not listed	Not listed	N/A
Sodium Borate	Not listed	Not listed	N/A

#### Toxicity to Animals:

Potassium Acid Phthalate: LD50 oral rat 3200 mg/kg

Monopotassium Phosphate: LD50 oral Rat, 3200 mg/kg; LD50 dermal, Rabbit > 4640 mg/kg

Sodium Borate: LD50 oral, rat, 2400 mg/kg; LD50 dermal, rabbit, >2000 mg/kg.

#### Chronic Effects for all buffers as made:

Mutagenicity, No evidence of a mutagenic effect.

Teratogenicity, No evidence of a teratogenic effect.

Sensitization, No evidence of a sensitization effect.

Reproductive, No evidence of negative reproductive effects.

### Section 12, Ecological information

Overview: This material is not expected to be harmful to the ecology.

Mobility: This material is expected to have high mobility in soil. It absorbs weakly to most soil types.

Persistence: Dissolves in water

Bioaccumulation: Bioconcentration is not expected to occur.

Degradability: No data

Other Adverse Effects: No data

### Section 13, Disposal considerations

Disposal Methods: Dispose in accordance with all applicable federal, state and local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

Waste Disposal Code(s): Not determined

### Section 14, Transport information

Ground, DOT Proper Shipping Name: Not regulated for transport by US DOT

Air, IATA Proper Shipping Name: Not regulated for air transport by IATA.

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### Section 15, Regulatory information

<b>Chemical Name</b>	<b>CAS No.</b>	<b>§ 313 Name</b>	<b>§ 304 RQ</b>	<b>CERCLA RQ</b>	<b>§ 302 TPQ</b>
Water	7732-18-5	No	No	No	No
Potassium Acid Phthalate	877-24-7	No	No	No	No
Monopotassium Phosphate	7778-77-0	No	No	No	No
Disodium Phosphate	7758-75-4	No	No	No	No
Sodium Borate	1309-96-4	No	No	No	No

### Section 16, Other information

The information provided in this Safety Data Sheet represents a compilation of data drawn from various sources available to us. YCA makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Safety Data Sheet.

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