

Buffer pH 3

SECTION 1. IDENTIFICATION

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|----------------------------|--|
| Product Identifier | Buffer pH 3 |
| Product Code(s) | BU1300 |
| Product Family | Inorganic solution |
| Recommended Use | Laboratory. |
| Restrictions on Use | None known. |
| Supplier Identifier | Alphachem Limited, 2485 Milltower Court, Mississauga, Ontario, L5N 5Z6, (905) 821-2995 |
| Emergency Phone No. | CANUTEC CANADA, 613-996-6666, 24 Hours |
| SDS No. | 0219 |

SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

Classification

Not classified under any hazard class.

Label Elements

Not applicable

Other Hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

| Chemical Name | CAS No. | % | Other Identifiers |
|--|-----------|-------|------------------------------|
| Water | 7732-18-5 | 98.86 | Dihydrogen Oxide |
| 1,2-Benzenedicarboxylic acid, monopotassium salt | 877-24-7 | 1.0 | Potassium Hydrogen Phthalate |
| Hydrochloric acid | 7647-01-0 | 0.07 | Hydrogen Chloride |
| Formaldehyde solution | 50-00-0 | 0.05 | Formalin, Methyl Aldehyde |
| Methanol | 67-56-1 | 0.02 | Methyl Alcohol |

SECTION 4. FIRST-AID MEASURES

First-aid Measures**Inhalation**

Move to fresh air. Keep at rest in a position comfortable for breathing. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor.

Skin Contact

Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. If skin irritation or a rash occurs, get medical advice or attention.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

Ingestion

Rinse mouth with water. Do not induce vomiting. Immediately call a Poison Centre or doctor.

First-aid Comments

Some of the first-aid procedures recommended here require advanced first-aid training. Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

None known.

Immediate Medical Attention and Special Treatment

Special Instructions

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire. Use water to keep non-leaking, fire-exposed containers cool.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Product

Does not burn. Closed containers may rupture violently when heated releasing contents. Not known to generate any hazardous decomposition products in a fire.

Special Protective Equipment and Precautions for Fire-fighters

No special precautions are necessary. Evacuate area. Fight fire from a safe distance or a protected location. Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Remove or isolate incompatible materials as well as other hazardous materials.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. Prevent accidental contact with incompatible chemicals. Only use where there is adequate ventilation. Do not get in eyes, on skin or on clothing.

Conditions for Safe Storage

Store in an area that is: cool, dry, well-ventilated. Store in a closed container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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Control Parameters

| Chemical Name | ACGIH TLV® | | OSHA PEL | | AIHA WEEL | |
|-----------------------|-----------------|----------|-----------------|---------|-----------|-----|
| | TWA | STEL | TWA | Ceiling | 8-hr TWA | TWA |
| Water | Not established | | Not established | | | |
| Formaldehyde solution | | 0.3 ppm | 0.75 ppm | | | |
| Hydrochloric acid | | 2 ppm A4 | | 5 ppm | | |
| Methanol | 200 ppm | 250 ppm | | | | |

Appropriate Engineering Controls

Use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Respiratory Protection

Not usually required when working with small quantities. For non-routine or emergency situations: wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

| | |
|--|--|
| Appearance | Clear colourless liquid. |
| Odour | Odourless |
| Odour Threshold | Not available |
| pH | 3.00 |
| Melting Point/Freezing Point | 0 °C (32 °F) (melting); 0 °C (32 °F) (freezing) |
| Initial Boiling Point/Range | 100 °C (212 °F) |
| Flash Point | Not applicable |
| Evaporation Rate | Not available |
| Flammability (solid, gas) | Not available |
| Upper/Lower Flammability or Explosive Limit | Not available (upper); Not available (lower) |
| Vapour Pressure | Not available |
| Vapour Density (air = 1) | Not available |
| Relative Density (water = 1) | 0.7 |
| Solubility | Soluble in water; Not available (in other liquids) |
| Partition Coefficient, n-Octanol/Water (Log Kow) | Not available |
| Auto-ignition Temperature | Not available |
| Decomposition Temperature | Not available |
| Viscosity | Not available (kinematic); Not available (dynamic) |
| Other Information | |
| Physical State | Liquid |

SECTION 10. STABILITY AND REACTIVITY

Reactivity

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None known.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

Heat.

Incompatible Materials

None known.

Hazardous Decomposition Products

None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

| Chemical Name | LC50 | LD50 (oral) | LD50 (dermal) |
|--|---|----------------------|-----------------------|
| 1,2-Benzenedicarboxylic acid, monopotassium salt | | > 3200 mg/kg (rat) | > 1 g/kg (rat) |
| Water | | > 89840 mg/kg (rat) | |
| Formaldehyde solution | 368 ppm (male mouse) (4-hour exposure) | 800 mg/kg (male rat) | ~ 300 mg/kg (rabbit) |
| Hydrochloric acid | 1405 ppm (male rat) (4-hour exposure) | 700 mg/kg (rat) | > 5010 mg/kg (rabbit) |
| Methanol | 64,000 ppm (rat) (4-hour exposure) | 5,628 mg/kg (rat) | 15,800 mg/kg (rabbit) |

LC50: No information was located.

LD50 (oral): No information was located.

LD50 (dermal): No information was located.

Skin Corrosion/Irritation

No information was located.

Serious Eye Damage/Irritation

No information was located.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

No information was located.

Skin Absorption

No information was located.

Ingestion

No information was located.

Aspiration Hazard

No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

No information was located.

Respiratory and/or Skin Sensitization

No information was located.

Carcinogenicity

| Chemical Name | IARC | ACGIH® | NTP | OSHA |
|--|------------|------------|------------------|------------|
| 1,2-Benzenedicarboxylic acid, monopotassium salt | Not Listed | Not Listed | Not Listed | Not Listed |
| Water | Not Listed | Not Listed | Not Listed | Not Listed |
| Formaldehyde solution | Group 1 | | Known carcinogen | |
| Hydrochloric acid | Group 3 | A4 | Not Listed | |
| Methanol | Group 2B | A3 | | |

Key to Abbreviations

IARC = International Agency for Research on Cancer. Group 1 = Carcinogenic to humans. Group 3 = Not classifiable as to its carcinogenicity to humans.

ACGIH® = American Conference of Governmental Industrial Hygienists. A4 = Not classifiable as a human carcinogen.

NTP = National Toxicology Program.

OSHA = US Occupational Safety and Health Administration.

Reproductive Toxicity**Development of Offspring**

May harm the unborn child.

Sexual Function and Fertility

No information was located.

Effects on or via Lactation

No information was located.

Germ Cell Mutagenicity

No information was located.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

Ecotoxicity**Acute Aquatic Toxicity**

| Chemical Name | LC50 Fish | EC50 Crustacea | ErC50 Aquatic Plants | ErC50 Algae |
|-----------------------|--|----------------|----------------------|---------------|
| Water | Not available | Not available | | Not available |
| Formaldehyde solution | 62-109 mg/L (Oncorhynchus mykiss (rainbow trout); 96-hour) | | | |
| Hydrochloric acid | 24.6 mg/L (Lepomis macrochirus (bluegill); 96-hour; | | | |

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| | fresh water; flow-through) | | | |
| Methanol | 28 g/l (Pimephales promelas (fathead minnow); 96-hour) | | | |

Chronic Aquatic Toxicity

| Chemical Name | NOEC Fish | EC50 Fish | NOEC Crustacea | EC50 Crustacea |
|---------------|-----------|--|----------------|----------------|
| Methanol | | 24.5 g/l (Daphnia magna (water flea); 48-hr) | | |

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of contents and container in accordance with local, regional, national and international regulations.

SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations. Not regulated under IATA Regulations.

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

Listed on the TSCA Inventory.

SECTION 16. OTHER INFORMATION

SDS Prepared By Alphachem Limited

Phone No. (905)-821-2995

Date of Preparation November 12, 2015

Date of Last Revision November 16, 2015

Revision Indicators The following SDS content was changed on November 13, 2015:
Section 11 - Toxicological Information; LC50/LD50 values.
The following SDS content was changed on November 13, 2015:
Section 8 - Exposure Controls/Personal Protection; Exposure Guidelines.
The following SDS content was changed on November 13, 2015:
Section 11 - Toxicological Information; LC50/LD50 values.

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reliance on any information herein.