

ALPHACHEM

pH 4.0

MATERIAL SAFETY DATA SHEET

MSDS# 41132 TRACKING# 6298

Section 1 - Chemical Product and Company Identification

MSDS Name: Buffer Solution pH 4.0
Catalog Numbers: BU1400, BU1400R
Synonyms: None.
Company Information: Alphachem Limited
2485 Milltower Court
Mississauga, ON L5N 5Z6
Tel: 905-821-2995 Fax: 905-821-2660 Email: info@alphachem.ca

CANUTEC 24hr Emergency Phone: 613-996-6666

Section 2 - Composition, Information on Ingredients

Risk Phrases: 43

CAS#: 50-00-0
Chemical Name: Formaldehyde
%: 0.05
EINECS#: 200-001-8
Hazard Symbols: XI

Risk Phrases: 11 23/24/25 39/23/24/25

CAS#: 67-56-1
Chemical Name: Methyl alcohol
%: 0.02
EINECS#: 200-659-6
Hazard Symbols: F T

Risk Phrases:

CAS#: 877-24-7
Chemical Name: Potassium Hydrogen Phthalate
%: 1.0
EINECS#: 212-889-4
Hazard Symbols:

Risk Phrases:

CAS#: 7732-18-5
Chemical Name: Water
%: 98.93
EINECS#: 231-791-2

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Hazard Symbols:

Text for R-phrases: see Section 16

Hazard Symbols: None listed

Risk Phrases: None listed

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Caution! The toxicological properties of this material have not been fully investigated. May cause eye, skin, and respiratory tract irritation.
Target Organs: No data found.

Potential Health Effects

Eye: May cause eye irritation.

Skin: May cause mild skin irritation.

Ingestion: May cause gastric disturbances and electrolytic imbalance. The toxicological properties of this substance have not been fully investigated.

Inhalation: May cause allergic respiratory reaction. May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

Chronic: May cause cancer according to animal studies.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Use extinguishing media appropriate to the surrounding fire. Substance is noncombustible. Containers may explode when heated.

Extinguishing Media: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

Autoignition: Not available.

Temperature:

Flash Point: Not available

Explosion: Not available

Limits: Lower:

Explosion: Not available

Limits: Upper:

NFPA Rating: health: 1; flammability: 0; instability: 0;

Section 6 - Accidental Release Measures

General: Use proper personal protective equipment as indicated in Section 8.

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Information:

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Use with adequate ventilation. Keep container tightly closed. Wash clothing before reuse.

Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep containers tightly closed.

Section 8 - Exposure Controls, Personal Protection

| Chemical Name | ACGIH | NIOSH | OSHA - Final PELs |
|---------------------------------|--|--|---|
| Formaldehyde | 0.3 ppm Ceiling | 0.016 ppm TWA 20 ppm IDLH | 0.75 ppm TWA; 0.5 ppm Action Level; 0.75 ppm TWA; 2 ppm STEL (Irritant and potential cancer hazard - see 29 CFR 1910.1048) |
| Methyl alcohol | 200 ppm; 250 ppm STEL; Skin - potential significant contribution to overall exposure by the cutaneous route | 200 ppm TWA; 260 mg/m3 TWA 6000 ppm IDLH | 200 ppm TWA; 260 mg/m3 TWA |
| Potassium Hydrogen Phthalate | none listed | none listed | none listed |
| Water | none listed | none listed | none listed |

OSHA Vacated PELs: Formaldehyde: 3 ppm TWA (unless specified in 1910.1048) Methyl alcohol: 200 ppm TWA; 260 mg/m3 TWA
Potassium Hydrogen Phthalate: None listed Water: None listed

Engineering Controls:

Good general ventilation should be sufficient to control airborne levels. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to minimize contact with skin.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

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Section 9 - Physical and Chemical Properties

Physical State: Liquid

Color: clear, colorless

Odor: odorless

pH: 4.0

Vapor Pressure: Not available

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: Not available

Boiling Point: Not available

Freezing/Melting Point: Not available

Decomposition Temperature: Not available

Solubility in water: soluble

Specific Gravity/Density: 1.0054

Molecular Formula: Solution

Molecular Weight: 0

Section 10 - Stability and Reactivity

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| Chemical Stability: | Stable at room temperature in closed containers under normal storage and handling conditions. |
| Conditions to Avoid: | None reported. |
| Incompatibilities with Other Materials | None reported. |
| Hazardous Decomposition Products | Formaldehyde. |
| Hazardous Polymerization | Has not been reported. |

Section 11 - Toxicological Information

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|-------------------|---|
| RTECS#: | CAS# 50-00-0: LP8925000 CAS# 67-56-1: PC1400000 CAS# 877-24-7: CZ4326000 CAS# 7732-18-5: ZC0110000 |
| LD50/LC50: | RTECS: CAS# 50-00-0: Draize test, rabbit, eye: 750 ug/24H Severe; Draize test, rabbit, eye: 750 ug Severe; Draize test, rabbit, eye: 10 mg Severe; Draize test, rabbit, eye: 37% Severe; Draize test, rabbit, skin: 2 mg/24H Severe; Draize test, rabbit, skin: 50 mg/24H Moderate; Inhalation, mouse: LC50 = 454 mg/m ³ /4H; Inhalation, mouse: LC50 = 505 mg/m ³ /2H; Inhalation, rat: LC50 = 203 mg/m ³ ; Inhalation, rat: LC50 = 578 mg/m ³ /2H; Inhalation, rat: LC50 = 250 ppm/2H; Oral, mouse: LD50 = 42 mg/kg; Oral, mouse: LD50 = 385 mg/kg; Oral, mouse: LD50 = 500 mg/kg; Oral, rat: LD50 = 100 mg/kg; Oral, rat: LD50 = 500 mg/kg; Skin, rabbit: LD50 = 270 uL/kg; Skin, rabbit: LD50 = 270 mg/kg; |

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RTECS:

CAS# 67-56-1: Draize test, rabbit, eye: 40 mg Moderate;
Draize test, rabbit, eye: 100 mg/24H Moderate;
Draize test, rabbit, skin: 20 mg/24H Moderate;
Inhalation, rabbit: LC50 = 81000 mg/m³/14H;
Inhalation, rat: LC50 = 64000 ppm/4H;
Oral, mouse: LD50 = 7300 mg/kg;
Oral, rabbit: LD50 = 14200 mg/kg;
Oral, rat: LD50 = 5600 mg/kg;
Skin, rabbit: LD50 = 15800 mg/kg;

RTECS:

CAS# 877-24-7: Dermal, guinea pig: LD50 = >1 gm/kg;
Oral, rat: LD50 = >3200 mg/kg;

RTECS:

CAS# 7732-18-5: Oral, rat: LD50 = >90 mL/kg;

Carcinogenicity: Formaldehyde - ACGIH: A2 - Suspected Human Carcinogen California: carcinogen, initial date 1/1/88 (gas) NTP: Suspect carcinogen IARC: Group 1 carcinogen
Methyl alcohol - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Potassium Hydrogen Phthalate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Water - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: See actual entry in RTECS for complete information.

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| Section 12 - Ecological Information |
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Not available

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| Section 13 - Disposal Considerations |
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Dispose of in a manner consistent with federal, state, and local regulations.

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| Section 14 - Transport Information |
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US DOT

Shipping Name: Not Regulated

Hazard Class:

UN Number:

Packing Group:

Canada TDG

Shipping Name: Not regulated as a hazardous material

Hazard Class:

UN Number:

Packing Group:

USA RQ: CAS# 50-00-0: 100 lb final RQ; 45.4 kg final RQ

USA RQ: CAS# 67-56-1: 5000 lb final RQ; 2270 kg final RQ

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| Section 15 - Regulatory Information |
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European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available

Risk Phrases:

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Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 50-00-0: 2

CAS# 67-56-1: 1

CAS# 877-24-7: Not available

CAS# 7732-18-5: Not available

Canada

CAS# 50-00-0 is listed on Canada's DSL List

CAS# 67-56-1 is listed on Canada's DSL List

CAS# 877-24-7 is listed on Canada's DSL List

CAS# 7732-18-5 is listed on Canada's DSL List

Canadian WHMIS Classifications: Not available

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 50-00-0 is listed on Canada's Ingredient Disclosure List

CAS# 67-56-1 is listed on Canada's Ingredient Disclosure List

CAS# 877-24-7 is not listed on Canada's Ingredient Disclosure List.

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 50-00-0 is listed on the TSCA Inventory.

CAS# 67-56-1 is listed on the TSCA Inventory.

CAS# 877-24-7 is listed on the TSCA Inventory.

CAS# 7732-18-5 is listed on the TSCA Inventory.

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| Section 16 - Other Information |
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MSDS Creation Date: 2/24/1999

Revision #10 Date: 09/16/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.