



## Material Safety Data Sheet

### Buffer solution pH9.0

### Section 1 - Chemical Product and Company Identification

**MSDS Name:**

Buffer solution pH 9.0

**Catalog Numbers:**

LC12440

**Synonyms:**

Boratebuffers,alkaline

**Company Identification:**

LabChem, Inc.  
200 William Pitt Way  
Pittsburgh, PA 15238

**Company Phone Number:**

(412) 826-5230

**Emergency Phone Number:**

(800) 424-9300

**CHEMTREC Phone Number:**

(800) 424-9300

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7732-18-5	Water	balance
7447-40-7	Potassium chloride	0.37
10043-35-3	Boric acid (H3BO3)	0.3
1310-73-2	Sodium hydroxide	0.1

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

*Appearance: Colorless*

*Caution! May cause eye and skin irritation. May cause respiratory and digestive tract irritation.*

*Target Organs: Noneknown.*

#### Potential Health Effects

**Eye:**

Maycauseeyeirritation.



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**Skin:**

May cause skin irritation.

**Ingestion:**

Ingested salts may act as nephrotoxins with nausea, vomiting, diarrhea, hemorrhagic gastritis, central nervous system depression leading to convulsions and death. Toxic symptoms include liver and kidney damage effects, acidosis, coagulation problems, lesions, secondary infections, meningitis, dehydration.

**Inhalation:**

May cause respiratory tract irritation.

**Chronic:**

Dry salts known to cause irritation, convulsions, anemia dermatitis, ulcers, conjunctivitis, anorexia.

## Section 4 - First Aid Measures

**Eyes:**

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.

**Skin:**

Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes.

**Ingestion:**

Do NOT induce vomiting. Get medical aid. Give conscious victim large quantities of water to dilute.

**Inhalation:**

Give artificial respiration if necessary. Get medical aid. Keep victim warm, at rest. Move victim to fresh air.

**Notes to Physician:**

Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

**General Information:**

Negligible fire and explosion hazard when exposed to heat or flame. Move container if possible, avoid breathing vapors or dust.

**Extinguishing Media:**

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

**Autoignition Temperature:**

No information found.

**Flash Point:**

No information found.

**NFPA Rating:**

CAS# 7732-18-5: Not published.

CAS# 7447-40-7: Not published.

CAS# 10043-35-3: Not published.

CAS# 1310-73-2: Not published.

**Explosion Limits:**

Lower:      Upper:



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### Section 6 - Accidental Release Measures

#### General Information:

Use proper personal protective equipment as indicated in Section 8.

#### Spills/Leaks:

Absorb spills with absorbent (vermiculite, sand, fuller's earth) and place in plastic bags for later disposal.

### Section 7 - Handling and Storage

#### Handling:

Wash thoroughly after handling. Avoid breathing dust, vapor, mist, or gas.

#### Storage:

Store capped at room temperature. Protect from heat and incompatibles.

### Section 8 - Exposure Controls, Personal Protection

#### Engineering Controls:

Provide local exhaust or general dilution ventilation.

#### Exposure Limits

Chemical Name:	ACGIH	NIOSH	OSHA
Water	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Potassium chloride	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Boric acid (h3bo3)	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Sodium hydroxide	None of the components are on this list.	None of the components are on this list.	2 mg/m3 TWA;

#### OSHA Vacated PELs

### Personal Protective Equipment

#### Eyes:

Do not wear contact lenses when working with chemicals. An eye wash fountain should be available in the immediate work area. Wear splash-proof safety goggles.

#### Skin:

Wear neoprene, natural nitrile rubber, or PVC gloves.

#### Clothing:

Wear appropriate protective clothing to prevent skin exposure.

#### Respirators:

Not required for normal use. Firefighting--any self-contained breathing apparatus with full facepiece operated in pressure-demand mode.

### Section 9 - Physical and Chemical Properties

Physical State: Clear liquid



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**Color:** Colorless

**Odor:** Odorless

**pH:** 9

**Vapor Pressure:** No information found.

**Vapor Density:** No information found.

**Evaporation Rate:** No information found.

**Viscosity:** No information found.

**Boiling Point:** > 100°C (> 212.00°F)

**Freezing/Melting Point:** < 0°C (< 32.00°F)

**Decomposition Temperature:** No information found.

**Solubility in water:** Soluble.

**Specific Gravity/Density:** 1-1.1

**Molecular Formula:** No information found.

**Molecular Weight:** No information found.

## Section 10 - Stability and Reactivity

### Chemical Stability:

Stable under normal temperatures and pressures.

### Conditions to Avoid:

Incompatible materials.

### Incompatibilities with Other Materials

Water reactive substances (e.g. sulfuric acid, sodium metal, potassium metal, calcium carbide).

### Hazardous Decomposition Products

Oxides of carbon, sodium oxide, hydrochloric acid.

### Hazardous Polymerization

## Section 11 - Toxicological Information

### RTECS:

CAS# 7732-18-5: ZC0110000.

CAS# 7447-40-7: TS8050000.

CAS# 10043-35-3: ED4550000.

CAS# 1310-73-2: WB4900000.

### LD50/LC50:

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg.

CAS# 7447-40-7:

Oral, mouse: LD50 = 1500 mg/kg

Oral, rat: LD50 = 2600 mg/kg.

CAS# 10043-35-3:

Oral, mouse: LD50 = 3450 mg/kg

Oral, rat: LD50 = 2660 mg/kg.

CAS# 1310-73-2:

No information found.



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#### **Carcinogenicity:**

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.  
CAS# 7447-40-7: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.  
CAS# 10043-35-3: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.  
CAS# 1310-73-2: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

#### **Epidemiology:**

#### **Teratogenicity:**

#### **Reproductive:**

#### **Mutagenicity:**

#### **Neurotoxicity:**

### Section 12 - Ecological Information

No information found.

### Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

### Section 14 - Transport Information

#### **US DOT**

**Shipping Name:** Not regulated.

**Hazard Class:**

**UN Number:**

**Packing Group:**

### Section 15 - Regulatory Information

#### **US Federal**

##### **TSCA**

CAS#7732-18-5 is listed on the TSCA Inventory.  
CAS#7447-40-7 is listed on the TSCA Inventory.  
CAS#10043-35-3 is listed on the TSCA Inventory.  
CAS#1310-73-2 is listed on the TSCA Inventory.

##### **SARA Reportable Quantities (RQ)**

CAS#1310-73-2: final RQ = 1000 pounds (454 kg)

##### **CERCLA/SARA Section 313**

None of the components are on this list.

##### **OSHA - Highly Hazardous**

None of the components are on this list.

#### **US State**



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#### State Right to Know

Sodium hydroxide can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

#### California Regulations

#### European/International Regulations

##### Canadian DSL/NDSL

CAS# 7732-18-5 is listed on Canada's DSL List.  
CAS# 7447-40-7 is listed on Canada's DSL List.  
CAS# 10043-35-3 is listed on Canada's DSL List.  
CAS# 1310-73-2 is listed on Canada's DSL List.

##### Canada Ingredient Disclosure List

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.  
CAS# 7447-40-7 is not listed on Canada's Ingredient Disclosure List.  
CAS# 10043-35-3 is listed on Canada's Ingredient Disclosure List.  
CAS# 1310-73-2 is listed on Canada's Ingredient Disclosure List.

### Section 16 - Other Information

MSDS Creation Date: July 4, 1998

Revision Date: September 26, 2008

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