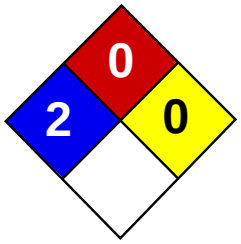

Health	2
Fire	0
Reactivity	0
Personal Protection	H

Material Safety Data Sheet

Phosphate Buffer Solution for chlorine MSDS

Section 1: Chemical Product and Company Identification

Product Name: Phosphate Buffer Solution for chlorine

Catalog Codes: SLB2518

CAS#: Mixture.

RTECS: Not applicable.

TSCA: TSCA 8(b) inventory: Potassium phosphate dibasic; Water; Sodium phosphate, dibasic

CI#: Not applicable.

Synonym: Phosphate Buffer for Chlorine

Chemical Name: Phosphate Buffer Solution

Chemical Formula: Not applicable.

Contact Information:

Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396

US Sales: **1-800-901-7247**
International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Potassium phosphate dibasic	7758-11-4	4.6
Edetate disodium, dihydrate	6381-92-6	0.08
Water	7732-18-5	92.9
Sodium phosphate, dibasic	7558-79-4	2.4

Toxicological Data on Ingredients:

Section 3: Hazards Identification

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

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Section 4: First Aid Measures

Eye Contact:
Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Skin Contact:
In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used.Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Serious Skin Contact:
Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion:
If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not applicable.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not applicable.

Explosion Hazards in Presence of Various Substances: Non-explosive in presence of open flames and sparks, of shocks.

Fire Fighting Media and Instructions: Not applicable.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill:
Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of acetic acid. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:
Poisonous liquid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Neutralize the residue with a dilute solution of acetic acid. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7: Handling and Storage

Precautions:
Keep locked up.. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 25°C (77°F).

Section 8: Exposure Controls/Personal Protection

Engineering Controls:
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Personal Protection:
Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:
Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

Section 9: Physical and Chemical Properties

Physical state and appearance: Liquid.

Odor: Not available.

Taste: Not available.

Molecular Weight: Not applicable.

Color: Not available.

pH (1% soln/water): Basic.

Boiling Point: The lowest known value is 100°C (212°F) (Water).

Melting Point: Not available.

Critical Temperature: Not available.

Specific Gravity: Weighted average: 1.03 (Water = 1)

Vapor Pressure: The highest known value is 2.3 kPa (@ 20°C) (Water).

Vapor Density: The highest known value is 0.62 (Air = 1) (Water).

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: The product is much more soluble in water.

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water.

Solubility:
Easily soluble in cold water, hot water. Insoluble in methanol, n-octanol.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Incompatible materials

Incompatibility with various substances: Slightly reactive to reactive with oxidizing agents.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Hygroscopic. (Potassium phosphate dibasic)

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Eye contact.

Toxicity to Animals: Acute oral toxicity (LD50): 17000 mg/kg [Rat]. (Sodium phosphate, dibasic).

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: (Potassium phosphate dibasic)

Special Remarks on Chronic Effects on Humans:
Genetic (Mutation) Effects (Cytogenic Analysis)cited (dust inhalation in hamsters) in "Registery of Toxic Effects of Chemical Substances" (RTECS) database. (Edetate disodium, dihydrate)

Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects: Skin: Causes mild skin irritation. There is no significant skin irritation hazard for low level (usual) industrial handling or exposure Eyes: Causes eye irritation. Inhalation: Causes respiratory tract and mucous membrane irritation. There is no significant inhalation hazard for low level (usual) industrial handling or exposure. Ingestion: May cause gastrointestinal tract irritation (gastroenteritis) with nausea, vomiting, abdominal discomfort, diarrhea. May affect behavior (somnolence, listlessness, mental confusion, convulsions), metabolism (anorexia), cardiovascular system (fall of blood pressure, cardiac arrythmias, heart block), kidneys (polyuria, polydipsia). May cause mineral imbalance and affect osmotic pressure of body fluids. Other clinical signs and symptoms of oral potassium overdosage include: paresthesias of the extremities, weakness or heaviness of the legs, flaccid paralysis, cold skin, gray pallor. (Potassium phosphate dibasic)
Acute Potential Health Effects: Skin: May cause skin irritation. Eye: Dust may cause eye irritation. Inhalation: Dust may cause respiratory tract irritation and may affect respiration (mechanically impede respiration). Ingestion: Although systemic reactions are unlikely when ingested (because they are incompletely absorbed in the intestinal tract), they may cause the following if ingested in large amounts: May cause gastrointestinal tract irritation with vomiting and diarrhea. May upset the mineral balance in the body, adversely affecting the osmotic pressure of body fluids. Acute poisoning may cause hyperphosphatemia, hypocalcemia, acidosis, hypernaturemia, lethargy, and hyperpyrexia, carpal spasm, and possible. May also affect the cardiovascular system. Chronic Potential Health Effects: No information was available. The toxicological properties of this substance have not been fully investigated. (Sodium Phosphate Monobasic, Anhydrous)

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: Not available.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

Section 15: Other Regulatory Information

Federal and State Regulations:
New York release reporting list: Sodium phosphate, dibasic Pennsylvania RTK: Sodium phosphate, dibasic Massachusetts RTK: Sodium phosphate, dibasic New Jersey: Sodium phosphate, dibasic TSCA 8(b) inventory: Potassium phosphate dibasic; Water; Sodium phosphate, dibasic

Other Regulations: Not available. or of its ingredients

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC):
R25- Toxic if swallowed. S1/2- Keep locked up and out of the reach of children. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 0

Reactivity: 0

Personal Protection: h

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 0

Reactivity: 0

Specific hazard:

Protective Equipment:
Gloves. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Splash goggles.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

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