

# Blulux

## Material Safety Data Sheet Buffer Solution, pH 7.0, Phosphate

### Section 1: Chemical Product and Company Identification

**Product Name:** Buffer Solution, pH 7.0, Phosphate

**CAS#:** Mixture.

**RTECS:** Not applicable.

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

**CI#:** Not available.

**Synonym:** Phosphate Buffer, pH 7.0

**Chemical Name:** Not applicable.

**Chemical Formula:** Not applicable.

**Contact Information:**

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### Section 2: Composition and Information on Ingredients

**Composition:**

Name	CAS #	% by Weight
Water	7732-18-5	94
Potassium phosphate monobasic	7778-77-0	2.54
Sodium phosphate, dibasic	7558-79-4	3.41

**Toxicological Data on Ingredients:**

### Section 3: Hazards Identification

**Potential Acute Health Effects:** Slightly hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion. Non-corrosive for skin. Non-corrosive to the eyes. Non-corrosive for lungs.

**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 if irritation occurs.

**Skin Contact:** Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

**Serious Skin Contact:** Not available.

**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. If ingested, seek medical advice immediately and show the container or the label.

**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:** Safety glasses. Lab coat.

**Personal Protection in Case of a Large Spill:** Splash goggles. Full suit. Boots. Gloves. 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:** Clear Colorless.

**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: 1.02 (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 acids, alkalis.

**Corrosivity:** Non-corrosive in presence of glass.

**Special Remarks on Reactivity:** Hygroscopic; keep container tightly closed. Incompatible with magnesium, alkaloids, antipyrine, chloral hydrate, lead acetate, pyrogallol, resorcinol, strong mineral acids, strong organic acids. (Sodium 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). Acute dermal toxicity (LD50): >4650 mg/kg [Rabbit]. (Potassium phosphate monobasic).

**Chronic Effects on Humans:** Not available.

**Other Toxic Effects on Humans:** Slightly hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation.

**Special Remarks on Toxicity to Animals:** Lowest Published Lethal Dose: LDL [Rat] - Route: Oral; Dose: 4640 mg/kg (Potassium phosphate monobasic)

**Special Remarks on Chronic Effects on Humans:** Not available.

**Special Remarks on other Toxic Effects on Humans:** Acute Potential Health Effects: Skin: Causes mild skin irritation. Eyes: Causes mild eye irritation. Ingestion: May cause irritation of the digestive tract. Expected to be a low ingestion hazard for usual industrial handling. Inhalation: May cause respiratory tract and mucous membrane irritation. Low hazard for usual industrial handling. Chronic Potential Health Effects: No information available. (Sodium phosphate, dibasic) Acute Potential Health Effects: Skin: May cause skin irritation. Risk of skin absorption is slight. Eyes: Dust may cause eye irritation. Inhalation: Inhalation may cause respiratory tract irritation, coughing and choking. Ingestion: Ingestion of large amounts may cause nausea, vomiting, abdominal discomfort (cramps), diarrhea. Also, symptoms of potassium poisoning may occur, which may include slow heartbeat, peripheral vascular collapse with fall in blood pressure, cardiac arrhythmias, heart block, accelerated breathing, and muscle weakness, heaviness of the legs, flaccid paralysis, cold skin, gray pallor, . May affect behavior (listlessness, mental confusion), . Chronic Potential Health Effects: Dermatitis may develop from repeated or prolonged skin contact. (Potassium Phosphate, Monobasic)

## 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:** The products of degradation are less toxic than the product itself.

**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: Water; Potassium phosphate monobasic; 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:** 1

**Fire Hazard:** 0

**Reactivity:** 0

**Personal Protection:** a

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

**Health:** 1

**Flammability:** 0

**Reactivity:** 0

**Specific hazard:**

**Protective Equipment:** Not applicable. Lab coat. Not applicable. Safety glasses.

**Section 16: Other Information**

**References:** Not available.

**Other Special Considerations:** Not available.