

# SAFETY DATA SHEET



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## 24-Hour Emergency Number (CHEMTREC)

USA: 800-424-9300  
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All non-emergency numbers should be directed  
to Customer Service at 800-PURITY1

## POTASSIUM PHOSPHATE MONOBASIC

SDS No. M0172

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Potassium Phosphate Monobasic

**Synonyms:** Phosphoric acid, Monopotassium Salt; Potassium Dihydrogen Phosphate

**Recommended Use:** This product is recommended for laboratory and manufacturing use only. It is not recommended for drug, food or household use.

### 2. HAZARDS IDENTIFICATION

Not classified as a hazardous material.

#### **Emergency Overview**

May cause irritation by all exposure routes. Hygroscopic.

#### **HMIS Rating:**

Health – 0 Flammability – 0 Physical Hazard – 0 PPE – User supplied

NOTE: HMIS ratings use a numbering scale that ranges from 0 - 4 to indicate the degree of hazard. A value of zero means the chemical presents no hazard while a value of four indicates a high hazard. These ratings are based on the inherent properties of this chemical under expected conditions of normal use and are not intended to be used in emergency situations. PPE is determined by the user based on their needs and conditions.

### 3. COMPOSITION AND INFORMATION ON INGREDIENTS

<u>Ingredient</u>	<u>CAS No</u>	<u>Percent</u>	<u>Hazardous</u>
Potassium Phosphate Monobasic	7778-77-0	>99%	No

### 4. FIRST-AID MEASURES

**Inhalation:** If inhaled, remove to fresh air. If not breathing, begin artificial respiration. Get medical aid if cough for other symptoms appear.

**Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Wash out mouth with water. Get medical aid.

**Skin Contact:** Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation develops and persists. Wash clothing and thoroughly clean shoes before reuse.

**Eye Contact:** Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention if irritation develops.

**Notes to Physician:** Persons with impaired kidney function may be more susceptible to the effects of this substance. Treat symptomatically and supportively.

Clear focus. Consistent results. Complete confidence.

## 5. FIRE FIGHTING MEASURES

Flammability: Not a fire hazard

Products of Combustion: Will decompose into toxic and irritating gases (phosphorous oxides) under fire conditions.

Specific Fire Hazards: As in any fire, always wear self-contained breathing apparatus in pressure-demand (MSA/NIOSH approved or equivalent), and full protective gear. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products.

Fire Fighting Media: Use extinguishing media appropriate to the surrounding fire.

National Fire Protective Association: (Estimated) Health - 0, Flammability - 0, Reactivity - 0

NOTE: NFPA ratings use a numbering scale that ranges from 0 - 4 to indicate the degree of hazard. A value of zero means the chemical presents no hazard while a value of four indicates a high hazard. They are for use by emergency personnel to address the hazards that are presented by short term, acute exposure to this product under fire, spill, or similar emergencies. Ratings involve data and interpretations that may vary from company to company.

## 6. ACCIDENTAL RELEASE MEASURES

Sweep up spilled material and place in a suitable container. Avoid dust generation. Always use proper personal protective equipment as described in section 8.

## 7. HANDLING AND STORAGE

Precautions: Wash thoroughly after handling. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid dust inhalation. Use with adequate ventilation.

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

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Personal Protection: Wear protective chemical goggles or appropriate eye protection. Use appropriate protective gloves and protective clothing to prevent skin exposure. A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever possible. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Exposure Limits: No information available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State and Appearance: Colorless to white crystals.

Odor: Odorless.

Molecular Formula:  $\text{KH}_2\text{PO}_4$

Molecular Weight: 136.09

Auto-ignition Temperature: Not available.

Flash Point: Not available.

Flammable Limits: Not available.

pH: Not available

Boiling Point: Decomposes.

Freezing/Melting Point: 252° C

Decomposition Temperature: >253° C

Specific Gravity: 2.338

Vapor Density (Air=1): Not available.

Vapor Pressure: Not available.

Viscosity: Not available.

Solubility: Soluble

## 10. STABILITY AND REACTIVITY

Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Dust generation, moisture.

Incompatibility with Various Substances: Strong oxidizing agents.

Hazardous Decomposition Products: Phosphorous oxides.

Hazardous Polymerization: Will not occur.

## 11. TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation, ingestion, skin contact

Acute Exposure Hazards:

INHALATION HAZARD: May cause irritation of the respiratory tract.

INGESTION HAZARD: May cause gastrointestinal irritation. Low hazard for industrial use.

SKIN CONTACT HAZARD: May cause skin irritation. Low hazard for industrial use.

EYE CONTACT HAZARD: Dust may cause mechanical irritation.

Chronic Exposure Hazards: Ingestion of large doses may cause nausea, vomiting, diarrhea. Chronic exposure to this product may cause calcium phosphate deposition in the kidneys.

Animal Toxicity:

Skin, rabbit: LD50 = 4640 mg/kg;

Carcinogenicity: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65

Epidemiology: No information available.

Teratogenicity: No information available.

Mutagenicity: No information available.

Neurotoxicity: No information available.

## 12. ECOLOGICAL INFORMATION

Ecotoxicity: When too many nutrients such as phosphorus are in the water, algae grows maniacally. Algae blooms are followed by a die-off, and as material decays, it consumes oxygen like a forest fire. No fish, plants or insects can live in oxygen-free zones.

Environmental Fate: No information available.

## 13. DISPOSAL CONSIDERATIONS

Material that cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Processing, use, or contamination of this product may change the waste management options. Waste generators must decide if discarded material is a hazardous waste. State and local disposal regulations may differ from federal disposal definitions found in 40 CFR 261.3. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 14. TRANSPORT INFORMATION

Not regulated for transportation.

## 15. REGULATORY INFORMATION

US Federal Regulations:

CERCLA Hazardous Substances: Not listed.

SARA Section 302: Does not have a TPQ

SARA Codes: CAS# 7778-77-0 – immediate

Section 313: Potassium Phosphate Monobasic (CAS# 7778-77-0) is not subject to SARA Title III Section 313 and 40 CFR 373 reporting requirements.

OSHA: Not considered highly hazardous by OSHA.

US State Regulations:

CAS# 7778-77-0 is listed on state right-to-know lists in New Jersey and Pennsylvania.

California Prop 65: This product does not contain any chemical known to the State of California to cause cancer, birth defects, or any other reproductive harm.

**16. OTHER INFORMATION**

Originally Prepared: 10/24/2006

Last Revised: 10/23/2020 – Updated Section 3.

The information contained herein is based on current knowledge and experience; no responsibility is accepted that the information is sufficient or correct in all cases. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of the environment.

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