

## 1. Product and Company Identification

<b>Material name</b>	POTASSIUM PHOSPHATE MONOBASIC
<b>Version #</b>	03
<b>Revision date</b>	08-09-2012
<b>CAS #</b>	7778-77-0
<b>Synonym(s)</b>	POTASSIUM DIHYDROGEN PHOSPHATE * Phosphoric acid, monopotassium salt
<b>Manufacturer information</b>	Mallinckrodt 675 McDonnell Blvd. Hazelwood, MO 63042 24 Hour Emergency 314-654-1600 Chemtrec 800-424-9300 Customer Service 888-744-1414
<b>Item code</b>	2929, 7096, 7097, 7100, 7746, 9096

## 2. Hazards Identification

<b>Emergency overview</b>	CAUTION  May cause skin and eye irritation. May cause irritation to the respiratory system. May be harmful if swallowed. May be harmful if inhaled.
<b>OSHA regulatory status</b>	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
<b>Potential health effects</b>	
<b>Routes of exposure</b>	Inhalation. Ingestion. Skin contact. Eye contact.
<b>Eyes</b>	Dust or powder may irritate eye tissue.
<b>Skin</b>	May cause skin irritation. Prolonged or repeated exposure may cause severe irritation. Avoid contact with the skin.
<b>Inhalation</b>	Inhalation of dusts may cause respiratory irritation. Coughing. Difficulty in breathing.
<b>Ingestion</b>	Ingestion of this product may cause nausea, vomiting and diarrhea. Heart problems. Changes in blood picture. Drowsiness. May cause central nervous system effects.
<b>Target organs</b>	Kidneys. Central nervous system. Heart and cardiovascular system.
<b>Chronic effects</b>	Chronic ingestion may result in systemic toxicity including calcium imbalance, increased pH and kidney damage.
<b>Potential environmental effects</b>	Ecological injuries are not known or expected under normal use.

## 3. Composition / Information on Ingredients

Components	CAS #	Percent
POTASSIUM PHOSPHATE MONOBASIC	7778-77-0	99 - 100

## 4. First Aid Measures

<b>First aid procedures</b>	
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Get medical attention if irritation develops and persists.
<b>Skin contact</b>	Wash off immediately with plenty of water. Remove and isolate contaminated clothing and shoes. Get medical attention if irritation develops or persists.
<b>Inhalation</b>	If gas/fume/vapor/dust/mist from the material is inhaled, remove the affected person immediately to fresh air. Oxygen or artificial respiration if needed. Call a physician if symptoms develop or persist.

**Ingestion**

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting without advice from poison control center. Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

**General advice**

In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire Fighting Measures

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**Flammable properties**

Not flammable by OSHA criteria. No unusual fire or explosion hazards noted.

**Extinguishing media****Suitable extinguishing media**

Water. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

**Protection of firefighters****Specific hazards arising from the chemical**

In the event of fire and/or explosion do not breathe fumes.

**Fire fighting equipment/instructions**

In the event of fire, cool tanks with water spray. Move containers from fire area if you can do it without risk. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**Specific methods**

Cool containers exposed to flames with water until well after the fire is out.

## 6. Accidental Release Measures

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**Personal precautions**

Ensure adequate ventilation. Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wear appropriate protective equipment and clothing during clean-up. Avoid contact with spilled material. Avoid inhalation of dust from the spilled material. Ventilate closed spaces before entering them.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so.

**Methods for containment**

Stop leak if you can do so without risk. Collect spillage. If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product.

**Methods for cleaning up**

Small Dry Spills: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. Collect dust using a vacuum cleaner equipped with HEPA filter. Following product recovery, flush area with water. For waste disposal, see section 13 of the MSDS.

## 7. Handling and Storage

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**Handling**

Do not use in areas without adequate ventilation. Keep formation of airborne dusts to a minimum. Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Avoid contact with skin. Avoid contact with eyes. Do not ingest. In case of insufficient ventilation, wear suitable respiratory equipment. Wash hands thoroughly after handling. Avoid prolonged exposure. Handle and open container with care.

**Storage**

Keep container tightly closed. Store in a cool, dry place. Store in a well-ventilated place. Guard against dust accumulation of this material. Use care in handling/storage. Store in accordance with local/regional/national/international regulation.

## 8. Exposure Controls / Personal Protection

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**Engineering controls**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing. Ensure adequate ventilation, especially in confined areas.

**Personal protective equipment****Eye / face protection**

Safety glasses. Use tight fitting goggles if dust is generated. Provide eyewash station and safety shower.

<b>Skin protection</b>	Wear suitable protective clothing. Chemical resistant gloves.
<b>Respiratory protection</b>	Particulate air-purifying respirator approved for dust or oil mist is recommended. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.
<b>General hygiene considerations</b>	Do not breathe dust. Avoid contact with eyes. Avoid contact with skin. Wash hands after handling and before eating. Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical & Chemical Properties

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<b>Appearance</b>	Granular. Powder.
<b>Physical state</b>	Solid.
<b>Form</b>	Powder.
<b>Color</b>	White
<b>Odor</b>	Odorless.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Vapor pressure</b>	< 0 kPa at 25 °C
<b>Vapor density</b>	Not available.
<b>Boiling point</b>	752 °F (400 °C) Loses water and becomes metaphosphate.
<b>Melting point/Freezing point</b>	487.4 °F (253 °C)
<b>Solubility (water)</b>	Slight
<b>Specific gravity</b>	2.34
<b>Relative density</b>	Not available.
<b>Flash point</b>	Not available.
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Molecular weight</b>	136.09 g/mol
<b>Molecular formula</b>	H3-O4-P.K
<b>Other data</b>	
<b>Density</b>	2.34 g/cm <sup>3</sup>
<b>Specific activity</b>	Not available.

## 10. Chemical Stability & Reactivity Information

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<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Conditions to avoid</b>	None under normal conditions.
<b>Incompatible materials</b>	None known.
<b>Hazardous decomposition products</b>	Oxides of phosphorus.
<b>Possibility of hazardous reactions</b>	Will not occur.

## 11. Toxicological Information

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### Toxicological data

#### Product

POTASSIUM PHOSPHATE MONOBASIC (7778-77-0)

#### Test Results

Acute Dermal LD50 Rabbit: > 4640 mg/kg  
Acute Oral LD50 Mouse: 1700 mg/kg

<b>Sensitization</b>	Not a skin sensitizer.
<b>Acute effects</b>	May be harmful if swallowed.
<b>Local effects</b>	Inhalation of dusts may cause respiratory irritation.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>Skin corrosion/irritation</b>	Not available.
<b>Epidemiology</b>	Not available.
<b>Neurological effects</b>	Not available.

## 12. Ecological Information

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<b>Ecotoxicity</b>	Not expected to be harmful to aquatic organisms.
<b>Environmental effects</b>	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
<b>Persistence and degradability</b>	No data is available on the degradability of this product.

## 13. Disposal Considerations

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<b>Disposal instructions</b>	This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport Information

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### DOT

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

## 15. Regulatory Information

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<b>US federal regulations</b>	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.
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CERCLA/SARA Hazardous Substances - Not applicable.

### Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2))

Not regulated

### DEA Essential Chemical Code Number

Not regulated

### Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Not regulated

### DEA Exempt Chemical Mixtures Code Number

Not regulated

### CERCLA (Superfund) reportable quantity

None

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

<b>Hazard categories</b>	Immediate Hazard - Yes
	Delayed Hazard - Yes
	Fire Hazard - No
	Pressure Hazard - No
	Reactivity Hazard - No

**Section 302 extremely hazardous substance** No

**Section 311 hazardous chemical** No

#### Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**State regulations** This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

## 16. Labeling Info

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<b>Label Hazard Warning</b>	CAUTION  May cause skin and eye irritation. May cause irritation to the respiratory system. May be harmful if swallowed. May be harmful if inhaled.
<b>Label Precautions</b>	Avoid contact with eyes, skin, and clothing. Avoid breathing dust. Keep container closed. Wash thoroughly after handling. Use only with adequate ventilation.
<b>Label First Aid</b>	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If gas/fume/vapor/dust/mist from the material is inhaled, remove the affected person immediately to fresh air. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

## 17. Other Information

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<b>NFPA ratings</b>	Health: 1 Flammability: 0 Instability: 0
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<b>Issue date</b>	08-09-2012
<b>This data sheet contains changes from the previous version in section(s):</b>	Physical & Chemical Properties: Multiple Properties Other Information: Disclaimer Labeling Info: Label First Aid