

**MSDS**

MATERIAL SAFETY DATA SHEET

**CHEMTREC:** 800-424-9300 (USA)

Canada)

703-527-3887(Outside USA and

**CANUTEC:**

613-996-6666

**From:** Mallinckrodt Baker, Inc  
222 Red School Lane  
Phillipsburg, NJ 08865

NOTE: Use CHEMTREC and CANUTEC  
phone

numbers only in the event

Emergency Telephone Number: 908-859-2151

of a chemical emergency.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

M A L L I N C K R O D T

**POTASSIUM PHOSPHATE DIBASIC**

**1. Product Identification**

**Synonyms:**

Phosphoric acid, dipotassium salt trihydrate; Dipotassium hydrogen phosphate trihydrate

**CAS No.:** 7758-11-4 (Anhydrous)

**Molecular Weight:** 228.24

**Chemical Formula:** K<sub>2</sub>HPO<sub>4</sub> 3H<sub>2</sub>O

**Product Codes:** 7088

**2. Composition/Information on Ingredients**

Ingredient	CAS No	Percent	Hazardous
Potassium Phosphate Dibasic Anhydrous	7758-11-4	90 - 100%	Yes

**3. Hazards Identification**

**Emergency Overview**

**CAUTION! MAY BE HARMFUL IF SWALLOWED.**

**Potential Health Effects**

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**Inhalation:**

Not expected to be a health hazard.

**Ingestion:**

Phosphates are slowly and incompletely absorbed when ingested, and seldom result in systemic effect effects, however, have occurred. Symptoms may include vomiting, lethargy, diarrhea, blood chemistry cardiac effects and central nervous system effects. The toxicity of phosphates is because of their sequester calcium. Acute potassium intoxication by mouth is rare because large single doses usually vomiting and because in the absence of pre-existing kidney damage, potassium is rapidly excreted. P poisoning can result in heart effects, change in respiration rate, tingling in the extremities, hea the limbs, nausea and diarrhea.

**Skin Contact:**

No adverse effects expected.

**Eye Contact:**

No adverse effects expected but dust may cause mechanical irritation.

**Chronic Exposure:**

May sequester calcium and cause calcium phosphate deposits in the kidneys.

**Aggravation of Pre-existing Conditions:**

Persons with impaired kidney function may be more susceptible to the effects of the substance.

**4. First Aid Measures**

**Inhalation:**

Remove to fresh air. Get medical attention for any breathing difficulty.

**Ingestion:**

If swallowed, give several glasses of water to drink to dilute. If large amounts were swallowed or occur, get medical advice. Never give anything by mouth to an unconscious person.

**Skin Contact:**

Wash exposed area with soap and water. Get medical advice if irritation develops.

**Eye Contact:**

Wash thoroughly with running water. Get medical advice if irritation develops.

**5. Fire Fighting Measures**

**Fire:**

Not considered to be a fire hazard.

**Explosion:**

Not considered to be an explosion hazard.

**Fire Extinguishing Media:**

Use any means suitable for extinguishing surrounding fire.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

**6. Accidental Release Measures**

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to prevent dust dispersal.

**7. Handling and Storage**

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (dust, etc.). Observe all warnings and precautions listed for the product.

**8. Exposure Controls/Personal Protection****Airborne Exposure Limits:**

- OSHA Permissible Exposure Limit (PEL):  
15 mg/m<sup>3</sup> total dust, 5 mg/m<sup>3</sup> respirable fraction for nuisance dusts.
- ACGIH Threshold Limit Value (TLV):  
10 mg/m<sup>3</sup> total dust containing no asbestos and

**Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**Personal Respirators (NIOSH Approved):**

If the exposure limit is exceeded, a half-face dust/mist respirator may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or the manufacturer, whichever is lowest. A full-face piece dust/mist respirator may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or the manufacturer, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

**Skin Protection:**

Wear protective gloves and clean body-covering clothing.

**Eye Protection:**

Safety glasses. Maintain eye wash fountain and quick-drench facilities in work area.

## 9. Physical and Chemical Properties

### Appearance:

Large, white deliquescent

### Odor:

Odorless.

### Solubility:

218 g/100 g water @ 25C (77F)

### Specific Gravity:

No information found.

### pH:

No information found.

### % Volatiles by volume @ 21C (70F):

0

### Boiling Point:

Not applicable.

### Melting Point:

No information found.

### Vapor Density (Air=1):

No information found.

### Vapor Pressure (mm Hg):

No information found.

### Evaporation Rate (BuAc=1):

No information found.

## 10. Stability and Reactivity

### Stability:

Stable under ordinary conditions of use and storage.

### Hazardous Decomposition Products:

Phosphorus oxides may form when heated to decomposition.

### Hazardous Polymerization:

Will not occur.

### Incompatibilities:

No incompatibility data found.

### Conditions to Avoid:

No information found.

## 11. Toxicological Information

No LD50/LC50 information found relating to normal routes of occupational exposure.

-----\Cancer Lists\-----

---NTP Carcinogen---

Ingredient	Known	Anticipated	IARC Category
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Potassium Phosphate Dibasic	No	No	None
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## 12. Ecological Information

### Environmental Fate:

No information found.

### Environmental Toxicity:

No information found.

## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved disposal facility. Processing, use or contamination of this product may change the waste management State and local disposal regulations may differ from federal disposal regulations. Dispose of contaminated contents in accordance with federal, state and local requirements.

## 14. Transport Information

Not regulated.

## 15. Regulatory Information

-----\Chemical Inventory Status - Part 1\-----

Ingredient	TSCA	EC	Japan	Australia
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Reactivity: No

(Mixture / Solid)

**Australian Hazchem Code:** No information found.

**Poison Schedule:** No information found.

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations the MSDS contains all of the information required by the CPR.

**16. Other Information**

**NFPA Ratings:** Health: 1 Flammability: 0 Reactivity: 0

**Label Hazard Warning:**

CAUTION! MAY BE HARMFUL IF SWALLOWED.

**Label Precautions:**

Wash thoroughly after handling.

**Label First Aid:**

If swallowed, give several glasses of water to drink to dilute. If large amounts were swallowed or occur, get medical advice. Never give anything by mouth to an unconscious person.

**Product Use:**

Industrial chemical.

**Revision Information:**

No changes.

**Disclaimer:**

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