1. Product Identification

Synonyms: Potassium hydrogen phosphate; Potassium phosphate dibasic anhydrous; Phosphoric acid, dipotassium salt; Dipotassium hydrogen phosphate

CAS No.: 7758-11-4
Molecular Weight: 174.18
Chemical Formula: K2HPO4
Product Codes:
J.T. Baker: 3250, 3251, 3252, 3254, 3257, 4012
Macron: 6917, 7080, 7092, 7295, 7787

2. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No</th>
<th>Percent</th>
<th>Hazardous</th>
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<tbody>
<tr>
<td>Potassium Phosphate Dibasic Anhydrous</td>
<td>7758-11-4</td>
<td>98 - 100%</td>
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</table>

3. Hazards Identification

Emergency Overview

CAUTION! MAY BE HARMFUL IF SWALLOWED.

SAF-T-DATA™ Ratings (Provided here for your convenience)

Health Rating: 1 - Slight
Flammability Rating: 0 - None
Reactivity Rating: 0 - None
Contact Rating: 0 - None
Lab Protective Equip: GOGGLES; LAB COAT
Storage Color Code: Green (General Storage)
Inhalation:
Not expected to be a health hazard.

Ingestion:
Phosphates are slowly and incompletely absorbed when ingested, and seldom result in systemic effects. Such effects, however, have occurred. Symptoms may include vomiting, lethargy, diarrhea, blood chemistry effects, cardiac effects and central nervous system effects. The toxicity of phosphates is because of their ability to sequester calcium. Acute potassium intoxication by mouth is rare because large single doses usually induce vomiting and because in the absence of pre-existing kidney damage, potassium is rapidly excreted. Potassium poisoning can result in heart effects, change in respiration rate, tingling in the extremities, heaviness in 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 symptoms 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 avoid 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, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

**Airborne Exposure Limits:**
None established.

**Ventilation System:**
A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. 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 ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**Personal Respirators (NIOSH Approved):**
For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face 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:**
Deliquescent white crystals or powder.

**Odor:**
Odorless.

**Solubility:**
150g/100g cold water

**Specific Gravity:**
No information found.

**pH:**
No information found.

% **Volatiles by volume @ 21C (70F):**
0

**Boiling Point:**
Not applicable.

**Melting Point:**
> 465C (> 869F)

**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. Slightly hygroscopic.

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\----------------------
Ingredient | NTP Carcinogen | Known | Anticipated | IARC Category
----------- | -------------- | ------ | ----------- | ---------------
Potassium Phosphate Dibasic Anhydrous (7758-11-4) | No | No | None

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 waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused 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
----------- | ---- | --- | ------ | ---------
Potassium Phosphate Dibasic Anhydrous (7758-11-4) | Yes | Yes | Yes | Yes

---\Chemical Inventory Status - Part 2\---------------------------
---Canada---
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\textbf{Federal, State & International Regulations - Part 1}

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<th>TPQ</th>
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\textbf{Federal, State & International Regulations - Part 2}

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<th>261.33</th>
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Chemical Weapons Convention: No  
TSCA 12(b): No  
CDTA: No  
SARA 311/312: Acute: Yes  Chronic: No  Fire: No  Pressure: No  
Reactivity: No  (Pure / Solid)

Australian Hazchem Code: None allocated.  
Poison Schedule: None allocated.  
WHMIS:  
This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information

\textbf{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 symptoms occur, get medical advice. Never give anything by mouth to an unconscious person.  
Product Use:  
Laboratory Reagent.  
Revision Information:  
No Changes.
Disclaimer:

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Prepared by: Environmental Health & Safety