Material Safety Data Sheet
Potassium phosphate, monobasic, ACS

Section 1 - Chemical Product and Company Identification

MSDS Name:
  Potassium phosphate, monobasic, ACS
Catalog Numbers:
  Q59002
Synonyms:
  Dihydrogen potassium phosphate; Monopotassium phosphate; Phosphoric acid, monopotassium salt; Potassium dihydrogen phosphate; Potassium dihydrogen orthophosphate.
Company Identification:
  Qorpak
  1195 Washington Pike
  Bridgeville, PA 15017
Company Phone Number:
  (412) 257-3100
Emergency Phone Number:
  (800) 424-9300
CHEMTREC Phone Number:
  (800) 424-9300

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name:</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>7778-77-0</td>
<td>Potassium phosphate, monobasic</td>
<td>100%</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

Emergency Overview

Appearance: colorless to white crystals.
  Caution! May cause eye, skin, and respiratory tract irritation. Hygroscopic (absorbs moisture from the air).
Target Organs: none.

Potential Health Effects

Eye:
  Dust may cause mechanical irritation.

Skin:
  May cause skin irritation. Low hazard for usual industrial handling.

Ingestion:
  May cause irritation of the digestive tract. Low hazard for usual industrial handling.

Inhalation:
  May cause respiratory tract irritation.

Chronic:
  Ingestion of large doses may cause nausea, vomiting, and diarrhea. Chronic exposure to this product may cause calcium phosphate deposition in the kidneys.
Material Safety Data Sheet
Potassium phosphate, monobasic, ACS

Section 4 - First Aid Measures

Eyes:
Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:
Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion:
Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation:
Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

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

Section 5 - Fire Fighting Measures

General Information:
As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media:
Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Autoignition Temperature:
No information found.

Flash Point:
No information found.

NFPA Rating:
Health-1; flammability-0; reactivity-0

Explosion Limits:
Lower: n/a  Upper: n/a

Section 6 - Accidental Release Measures

General Information:
Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:
Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.
Section 7 - Handling and Storage

Handling:
Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Use with adequate ventilation. Wash clothing before reuse.

Storage:
Keep container closed when not in use. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium phosphate, monobasic</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs:
Potassium phosphate, monobasic: No OSHA Vacated PELs are listed.

Personal Protective Equipment

Eyes:
Do not wear contact lenses when working with chemicals. An eye wash fountain should be available in the immediate work area. Wear appropriate protective eyeglasses or chemical safety goggles as described in 29 CFR 1910.133.

Skin:
Wear appropriate protective gloves to prevent skin exposure.

Clothing:
Wear appropriate protective clothing to prevent skin exposure.

Respirators:
Follow the OSHA respirator regulations found in 29 CFR 1910.134. Use a NIOSH/MSHA approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State:</th>
<th>Crystals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color:</td>
<td>White</td>
</tr>
<tr>
<td>Odor:</td>
<td>Odorless</td>
</tr>
<tr>
<td>pH:</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Pressure:</td>
<td>Not available</td>
</tr>
</tbody>
</table>
Material Safety Data Sheet
Potassium phosphate, monobasic, ACS

Vapor Density: Not available
Evaporation Rate: Not available
Viscosity: Not available
Boiling Point: Not available
Freezing/Melting Point: 252.6°C
Decomposition Temperature: > 253°C
Solubility in water: Soluble
Specific Gravity/Density: 2.338 g/cm³
Molecular Formula: KH₂PO₄
Molecular Weight: 136.09

Section 10 - Stability and Reactivity

Chemical Stability:
Stable under normal storage and handling conditions.

Conditions to Avoid:
Dust generation, moisture.

Incompatibilities with Other Materials:
No significant incompatibilities identified with common materials and contaminants.

Hazardous Decomposition Products:
Oxides of phosphorus, irritating and toxic fumes and gases.

Hazardous Polymerization:
Has not been reported.

Section 11 - Toxicological Information

RTECS:
CAS# 7778-77-0: TC66

LD₅₀/LC₅₀:
CAS# 7778-77-0:
Skin, rabbit: LD₅₀ = >4640 mg/kg

Carcinogenicity:
CAS# 7778-77-0: Not listed by ACGIH, IARC, NTP, or CA Proposition 65.

Epidemiology:
No information available.

Teratogenicity:
No information available.

Reproductive:
No information available.

Mutagenicity:
No information available.

Neurotoxicity:
No information available.
Section 12 - Ecological Information

Other: 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.

Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: Not regulated.
Hazard Class:
UN Number:
Packing Group:

Section 15 - Regulatory Information

US Federal
TSCA:
CAS# 7778-77-0 is listed on the TSCA inventory. Does not have a Significant New Use Rule.
SARA Reportable Quantities (RQ):
CAS# 7778-77-0 does not have an RQ.
CERCLA/SARA Section 313:
Not reportable under Section 313.
OSHA - Highly Hazardous:
Not considered highly hazardous by OSHA.

US State
State Right to Know:
CAS# 7778-77-0 is not listed on the following state right to know lists: California, Florida, Minnesota, New Jersey, Pennsylvania, and Massachusetts.
California Regulations:
Not listed.

European/International Regulations
Canadian DSL/NDSL:
CAS# 7778-77-0 is listed on Canada’s DSL List.
Canada Ingredient Disclosure List:
CAS# 7778-77-0 is not listed on the Ingredient Disclosure List.
Section 16 - Other Information

MSDS Creation Date: August 7, 2006
Revision Date: None

Information in this MSDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and Qorpak assumes no liability resulting from the use of this MSDS. The user must determine suitability of this information for his application.