MATERIAL SAFETY DATA SHEET
Potassium hydrogen phthalate

Section 1 - Chemical Product and Company Identification

MSDS Name: Potassium hydrogen phthalate
Catalog Numbers: P/5320/48, P/5320/50, P/5320/53, P/5320/60
Synonyms: Potassium biphthalate; Potassium acid phthalate.
Company Identification: Fisher Scientific UK
Bishop Meadow Road, Loughborough Leics. LE11 5RG
For information in Europe, call: (01509) 231166
Emergency Number, Europe: 01509 231166

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>%</th>
<th>EINECS#</th>
</tr>
</thead>
<tbody>
<tr>
<td>877-24-7</td>
<td>Potassium hydrogen phthalate</td>
<td>99+</td>
<td>212-889-4</td>
</tr>
</tbody>
</table>

Hazard Symbols: None listed
Risk Phrases: None listed

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Not available

Potential Health Effects

Eye: May cause eye irritation.
Skin: May cause skin irritation. May be harmful if absorbed through the skin.
Ingestion: May cause irritation of the digestive tract. May be harmful if swallowed.
Inhalation: May cause respiratory tract irritation. May be harmful if inhaled.
Chronic: No information found.

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. If irritation develops, get medical aid.
Skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.
Ingestion: Do not induce vomiting. Get medical aid if irritation or symptoms occur.
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 if cough or other symptoms appear.

Notes to Physician:

Section 5 - Fire Fighting Measures

General: As in any fire, wear a self-contained breathing apparatus in pressure-demand,
Information: MSHA/NIOHS (approved or equivalent), and full protective gear.
Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

### 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. Avoid generating dusty conditions. Provide ventilation. Do not let this chemical enter the environment.

### Section 7 - Handling and Storage

**Handling:** Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

**Storage:** Store in a cool, dry place. Store in a tightly closed container.

### 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 ventilation to keep airborne concentrations low.

**Exposure Limits**

CAS# 877-24-7:

**Personal Protective Equipment**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to minimize contact with skin.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

### Section 9 - Physical and Chemical Properties

**Physical State:** Crystals

**Color:** white

**Odor:** odorless

**pH:** 3.8 - 4.0 (5% aq. sol.)

**Vapor Pressure:** Not applicable.

**Viscosity:** Not applicable.

**Boiling Point:** Not applicable.

**Freezing/Melting Point:** 295 - 300 deg C

**Autoignition Temperature:** Not available.

**Flash Point:** Not applicable.

**Explosion Limits: Lower:** Not available

**Explosion Limits: Upper:** Not available

**Decomposition Temperature:** Not available

**Solubility in water:** 80 g/L @ 20°C

**Specific Gravity/Density:** 1.636
**Molecular Formula:** C₈H₅KO₄  
**Molecular Weight:** 204.22

### Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Incompatible materials, dust generation, excess heat.

**Incompatibilities with Other Materials**
- Strong oxidizing agents, nitric acid.

**Hazardous Decomposition Products**
- Carbon monoxide, carbon dioxide, oxides of potassium, potassium fume.

**Hazardous Polymerization**
- Will not occur.

### Section 11 - Toxicological Information

**RTECS#:** CAS# 877-24-7: CZ4326000  
**LD₅₀/LC₅₀:**
- Dermal, guinea pig: LD₅₀ = >1 gm/kg;  
- Oral, rat: LD₅₀ = >3200 mg/kg;

**Carcinogenicity:** Potassium hydrogen phthalate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

**Other:** The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

### Section 12 - Ecological Information

**Other:** Do not empty into drains.

### Section 13 - Disposal Considerations

Products considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local authority or advice. Empty containers must be decontaminated before returning for recycling.

### Section 14 - Transport Information

<table>
<thead>
<tr>
<th>IATA</th>
<th>IMO</th>
<th>RID/ADR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Class:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UN Number:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Packing Group:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Section 15 - Regulatory Information

**European/International Regulations**

European Labeling in Accordance with EC Directives
- **Hazard Symbols:** Not available
- **Risk Phrases:**
- **Safety Phrases:**  
  - S 24/25 Avoid contact with skin and eyes.

**WGK (Water Danger/Protection)**
- CAS# 877-24-7: Not available

**Canada**
- CAS# 877-24-7 is listed on Canada's DSL List

**US Federal**
CAS# 877-24-7 is listed on the TSCA Inventory.

Section 16 - Other Information

**MSDS Creation Date:** 12/12/1997  
**Revision #9 Date**  2/15/2008

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

--------------------------------------------------------------------------------