Material Safety Data Sheet
Sodium phosphate dibasic heptahydrate

MSDS# 21535

Section 1 - Chemical Product and Company Identification

MSDS Name: Sodium phosphate dibasic heptahydrate
Synonyms: Disodium hydrogen phosphate heptahydrate; Disodium orthophosphate heptahydrate.

Company Identification: Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
For information in the US, call: 201-796-7100
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

Risk Phrases:
CAS#: 7782-85-6
Chemical Name: Disodium orthophosphate heptahydrate
%: 99+
EINECS#: unlisted

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Caution! Hygroscopic (absorbs moisture from the air). The toxicological properties of this material have not been fully investigated. May cause eye, skin, and respiratory tract irritation. Target Organs: None known.

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
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. Substance is noncombustible.

Extinguishing Media: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

Autoignition Temperature: Not applicable.
Flash Point: Not applicable.
Explosion Limits: Not available
Lower: Not available
Upper: Not available

NFPA Rating: health: 1; flammability: 0; instability: 1;

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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium phosphate dibasic, anhydrous</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
<tr>
<td>Disodium orthophosphate heptahydrate</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs: Sodium phosphate dibasic, anhydrous: None listed Disodium orthophosphate heptahydrate: None listed

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

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 prevent skin exposure.

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 - semi-transparent

Odor: odorless

pH: 9.0 - 9.3 (5% aq.sol. 20°C)
Vapor Pressure: Not available
Vapor Density: Not available
Evaporation Rate: Not applicable.
Viscosity: Not available
Boiling Point: Not applicable.
Decomposition Temperature:
Solubility in water: 154 g/L (20°C)
Specific Gravity/Density: Not available.
Molecular Formula: HNa2O4P.7H2O
Molecular Weight: 268.07

Section 10 - Stability and Reactivity
Chemical Stability: Hygroscopic: absorbs moisture or water from the air.
Conditions to Avoid: Incompatible materials, dust generation, excess heat, exposure to moist air or water.
Incompatibilities with Other Materials: Metals, strong oxidizing agents, strong acids.
Hazardous Decomposition Products: Oxides of phosphorus, sodium oxide.
Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information
RTECS#: CAS# 7558-79-4: WC4500000
CAS# 7782-85-6: WC4600000
RTECS:
CAS# 7558-79-4: Draize test, rabbit, eye: 500 mg/24H Mild;
Draize test, rabbit, skin: 500 mg/24H Mild;
Oral, rat: LD50 = 17 gm/kg;

RTECS:
CAS# 7782-85-6: Oral, rat: LD50 = 12930 mg/kg;

Carcinogenicity: Sodium phosphate dibasic, anhydrous - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Disodium orthophosphate heptahydrate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information
Other: Do not empty into drains.

Section 13 - Disposal Considerations
Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information
US DOT
Shipping Name: Not Regulated
Hazard Class:
UN Number:
Packing Group:
Canada TDG
Shipping Name: Not regulated as a hazardous material
Hazard Class:
UN Number:
Packing Group:

USA RQ: CAS# 7558-79-4: 5000 lb final RQ; 2270 kg final RQ

Section 15 - Regulatory Information
European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available
Risk Phrases: S 24/25 Avoid contact with skin and eyes.
Safety Phrases:

WGK (Water Danger/Protection)
CAS# 7558-79-4: 1
CAS# 7782-85-6: Not available

Canada
CAS# 7558-79-4 is listed on Canada's DSL List
Canadian WHMIS Classifications: D2B
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.
CAS# 7558-79-4 is not listed on Canada's Ingredient Disclosure List.
CAS# 7782-85-6 is not listed on Canada's Ingredient Disclosure List.

US Federal
TSCA
CAS# 7558-79-4 is listed on the TSCA Inventory.
CAS# 7782-85-6 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the Inventory (40CFR720.3(u)(2)).

Section 16 - Other Information
MSDS Creation Date: 7/12/1999
Revision #8 Date 7/20/2009

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.

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