Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Sodium phosphate dibasic anhydrous
Cat No.: BP332-1; BP332-500; S374-1; S374-3; S374-50; S374-250LB; S374-500; S375-12; S375-100LB; S375-212; S375-250LB; S375-500; S379-12; S379-50; S379-212; S379-250LB; S379-500; S393-3; S393-3LC
Synonyms: Disodium hydrogen phosphate; Monohydrogen sodium phosphate (Granular/Powder/USP/FCC/EP/Laboratory/Certified ACS)
Recommended Use: Laboratory chemicals

Company: Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number:
CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 703-527-3867

2. HAZARDS IDENTIFICATION

CAUTION!

Emergency Overview:
May cause eye, skin, and respiratory tract irritation. The toxicological properties have not been fully investigated. Hygroscopic.

Appearance: White
Physical State: Powder
Odor: Odorless

Target Organs: Kidney
Potential Health Effects:

Acute Effects
Principle Routes of Exposure:

<table>
<thead>
<tr>
<th>Organs</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eyes</td>
<td>May cause irritation</td>
</tr>
<tr>
<td>Skin</td>
<td>May cause irritation. May be harmful in contact with skin.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>May cause irritation of respiratory tract. May be harmful if inhaled.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhea.</td>
</tr>
</tbody>
</table>
Chronic Effects

May cause adverse kidney effects.

See Section 11 for additional Toxicological Information.

Aggravated Medical Conditions

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Haz/Non-haz</th>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sodium phosphate dibasic</td>
<td>7558-79-4</td>
<td>99</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

Inhalation

Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.

Ingestion

Do not induce vomiting. Obtain medical attention.

Notes to Physician

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash Point Method

No information available.

Autoignition Temperature

No information available.

Explosion Limits

Upper
No data available

Lower
No data available

Suitable Extinguishing Media

Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

Unsuitable Extinguishing Media

No information available.

Hazardous Combustion Products

No information available.

Sensitivity to mechanical impact

No information available.

Sensitivity to static discharge

No information available.

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes and clothing.

Environmental Precautions
Should not be released into the environment.

Methods for Containment and Clean Up
Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal.

7. HANDLING AND STORAGE

Handling
Wear personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Do not breathe dust. Avoid contact with skin, eyes and clothing.

Storage
Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures
Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Exposure Guidelines
This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

NIOSH IDLH: Immediately Dangerous to Life or Health

Personal Protective Equipment

Eye/Face Protection
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 and body protection
Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection
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.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Powder</td>
</tr>
<tr>
<td>Appearance</td>
<td>White</td>
</tr>
<tr>
<td>odor</td>
<td>odorless</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No Information available.</td>
</tr>
<tr>
<td>pH</td>
<td>8.7-9.3 (@ 20°C) 5% aq.sol. 20°C</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No Information available.</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No Information available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No Information available.</td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>No Information available.</td>
</tr>
<tr>
<td>Melting Point/Range</td>
<td>No Information available.</td>
</tr>
<tr>
<td>Decomposition temperature °C</td>
<td>&gt; 240°C</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No Information available.</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No Information available.</td>
</tr>
</tbody>
</table>
9. PHYSICAL AND CHEMICAL PROPERTIES
Specific Gravity  No information available.
Solubility  Slightly soluble in water
Log Pow  No data available
Molecular Weight  141.96
Molecular Formula  H Na2 O4 P

10. STABILITY AND REACTIVITY
Stability  Hygroscopic.
Conditions to Avoid  Incompatible products. Excess heat. Exposure to moist air or water.
Incompatible Materials  Strong oxidizing agents, Strong acids
Hazardous Decomposition Products  Sodium oxides, Oxide of phosphorus
Hazardous Polymerization  Hazardous polymerization does not occur
Hazardous Reactions  None under normal processing.

11. TOXICOLOGICAL INFORMATION
Acute Toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral (mg/kg)</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium phosphate dibasic</td>
<td>17 (Rat)</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Irritation  No information available.
Toxicologically Synergistic Products  No information available.

Chronic Toxicity
Carcinogenicity  There are no known carcinogenic chemicals in this product

Sensitization  No information available.
Mutagenic Effects  No information available.
Reproductive Effects  No information available.
Developmental Effects  No information available.
Teratogenicity  No information available.
Other Adverse Effects: The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

Endocrine Disruptor Information: No information available

### 12. ECOLOGICAL INFORMATION

Ecotoxicity: Do not empty into drains

Persistence and Degradability: No information available

Bioaccumulation/Accumulation: No information available

Mobility: No information available

### 13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

### 14. TRANSPORT INFORMATION

DOT: Not regulated

TDG: Not regulated

IATA: Not regulated

IMDG/IMO: Not regulated

### 15. REGULATORY INFORMATION

<table>
<thead>
<tr>
<th>International inventories</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>NLP</th>
<th>PICCS</th>
<th>ENCS</th>
<th>AICS</th>
<th>CHINA</th>
<th>KECL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium phosphate dibasic</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>231-448-7</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>KE-12344 X</td>
</tr>
</tbody>
</table>

Legend:

X - Listed
E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
P - Indicates a commenced PMN substance
R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
S - Indicates a substance that is identified in a proposed or final Significant New Use Rule
T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.
XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).
Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

**U.S. Federal Regulations**

**TSCA 12(b) Not applicable**

**SARA 313**
Not applicable

**SARA 311/312 Hazardous Categorization**

- Acute Health Hazard: No
- Chronic Health Hazard: No
- Fire Hazard: No
- Sudden Release of Pressure Hazard: No
- Reactive Hazard: No

**Clean Water Act**

<table>
<thead>
<tr>
<th>Component</th>
<th>CWA - Hazardous Substances</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium phosphate dibasic</td>
<td>X</td>
<td>5000 lb</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Clean Air Act**
Not applicable

**OSHA**
Not applicable

**CERCLA**
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

<table>
<thead>
<tr>
<th>Component</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA EHS RQs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium phosphate dibasic</td>
<td>5000 lb</td>
<td>-</td>
</tr>
</tbody>
</table>

**California Proposition 65**
This product does not contain any Proposition 65 chemicals.

**State Right-to-Know**

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium phosphate dibasic</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
U.S. Department of Transportation
Reportable Quantity (RQ): Y
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security
This product does not contain any DHS chemicals.

Other International Regulations
Mexico - Grade No information available

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class
Non-controlled

16. OTHER INFORMATION

Prepared By
Regulatory Affairs
Thermo Fisher Scientific
Tel: (412) 490-8829

Creation Date
02-Feb-2010

Print Date
02-Feb-2010

Revision Summary
"****", and red text indicates revision

Disclaimer
The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS