

## 1. Product and Company Identification

<b>Material name</b>	<b>SODIUM PHOSPHATE MONOBASIC MONOHYDRATE</b>
<b>Version #</b>	02
<b>Revision date</b>	08-30-2011
<b>CAS #</b>	10049-21-5
<b>Product Codes</b>	<b>J.T.Baker: 3802, 3818, 3820, 3821, 4011, 7839</b> <b>Macron: 7774, 7868, 7892</b>
<b>Synonym(s)</b>	Sodium dihydrogen phosphate, monohydrate * Phosphoric acid, monosodium salt, monohydrate * Monosodium dihydrogen orthophosphate monohydrate
<b>Manufacturer</b>	Avantor Performance Materials, Inc.
<b>Address</b>	3477 Corporate Parkway Suite #200 Center Valley, PA 18034 US
<b>Customer Service</b>	855-282-6867
<b>24 Hour Emergency</b>	908-859-2151
<b>Chemtec</b>	800-424-9300

## 2. Hazards Identification

<b>Emergency overview</b>	CAUTION  Product dust may be irritating to eyes, skin and respiratory system.
<b>OSHA regulatory status</b>	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
<b>Potential health effects</b>	
<b>Routes of exposure</b>	Inhalation. Skin contact. Eye contact. Ingestion.
<b>Eyes</b>	Dust or powder may irritate eye tissue.
<b>Skin</b>	Dust or powder may irritate the skin.
<b>Inhalation</b>	Inhalation of dusts may cause respiratory irritation.
<b>Ingestion</b>	Expected to be a low ingestion hazard. May cause irritation of the gastrointestinal tract. Will have a laxative effect if swallowed.
<b>Target organs</b>	Eyes. Skin. Upper respiratory tract.
<b>Chronic effects</b>	None known.
<b>Potential environmental effects</b>	The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

## 3. Composition / Information on Ingredients

Non-hazardous components	CAS #	Percent
SODIUM PHOSPHATE MONOBASIC MONOHYDRATE	10049-21-5	98 - 100

**Composition comments** CAS # 10049-21-5 can be described by the CAS # 7558-80-7.

## 4. First Aid Measures

<b>First aid procedures</b>	
<b>Eye contact</b>	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if irritation develops and persists.
<b>Skin contact</b>	Immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if irritation develops and persists.

<b>Inhalation</b>	Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.
<b>Ingestion</b>	Give one or two glasses of water if patient is alert and able to swallow. Seek immediate medical attention. Do not induce vomiting.
<b>Notes to physician</b>	Treat symptomatically.
<b>General advice</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

## 5. Fire Fighting Measures

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<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Unsuitable extinguishing media</b>	None known.
<b>Protection of firefighters</b>	
<b>Protective equipment and precautions for firefighters</b>	Firefighters should wear full protective gear. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
<b>Special protective equipment for fire-fighters</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. Accidental Release Measures

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<b>Personal precautions</b>	Keep unnecessary personnel away. Keep upwind. Ventilate the area. Avoid inhalation of dust from the spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for containment</b>	If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Prevent entry into waterways, sewer, basements or confined areas.
<b>Methods for cleaning up</b>	Avoid dust formation.  Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.  Large Spills: Collect dust or particulates using a vacuum cleaner with a HEPA filter. Reduce airborne dust and prevent scattering by moistening with water.  Never return spills in original containers for re-use. Clean contaminated surface thoroughly. Clean up in accordance with all applicable regulations.
<b>Other information</b>	Clean up in accordance with all applicable regulations.

## 7. Handling and Storage

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<b>Handling</b>	Keep formation of airborne dusts to a minimum. Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Use only with adequate ventilation. Wash thoroughly after handling. See Section 8 of the MSDS for Personal Protective Equipment.
<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place.

## 8. Exposure Controls / Personal Protection

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<b>Exposure guidelines</b>	Not established.
<b>Engineering controls</b>	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
<b>Personal protective equipment</b>	
<b>Eye / face protection</b>	Use tight fitting goggles if dust is generated.
<b>Skin protection</b>	Wear appropriate clothing to prevent repeated or prolonged skin contact.
<b>Respiratory protection</b>	Wear respirator if there is dust formation.

**General hygiene considerations**

Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**9. Physical & Chemical Properties**

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<b>Appearance</b>	Powder.
<b>Color</b>	White.
<b>Odor</b>	Odorless.
<b>Odor threshold</b>	Not available.
<b>Physical state</b>	Solid.
<b>Form</b>	Crystalline.
<b>pH</b>	4.1 - 4.5 (5% Solution)
<b>Melting point</b>	392 °F (200 °C)
<b>Freezing point</b>	392 °F (200 °C)
<b>Boiling point</b>	399.2 °F (204 °C)
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Specific gravity</b>	2.04
<b>Relative density</b>	Not available.
<b>Solubility (water)</b>	Soluble
<b>Partition coefficient (n-octanol/water)</b>	Not available
<b>Auto-ignition temperature</b>	Not available.
<b>Molecular weight</b>	137.99 g/mol
<b>Molecular formula</b>	H <sub>2</sub> O <sub>4</sub> P-Na.H <sub>2</sub> O

**10. Chemical Stability & Reactivity Information**

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<b>Chemical stability</b>	Stable under normal temperature conditions. The substance is hygroscopic and will absorb water by contact with the moisture in the air.
<b>Conditions to avoid</b>	Incompatible materials.
<b>Incompatible materials</b>	Acids.
<b>Hazardous decomposition products</b>	Decomposition of this product may yield oxides of phosphorus. Sodium oxides.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.

**11. Toxicological Information**

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**Toxicological data****Product**

SODIUM PHOSPHATE MONOBASIC MONOHYDRATE  
(10049-21-5)

**Test Results**

Acute Dermal LD50 Rabbit: > 7940 mg/kg

Acute Oral LD50 Rat: 8290 mg/kg

**Sensitization**

Not a skin sensitizer.

<b>Acute effects</b>	Low hazard for usual industrial or commercial handling.
<b>Local effects</b>	May cause eye irritation. May cause skin irritation. May cause irritation to the respiratory system. Will have a laxative effect if swallowed.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>Skin corrosion/irritation</b>	Contact with skin may cause irritation.
<b>Epidemiology</b>	No epidemiological data is available for this product.
<b>Mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Neurological effects</b>	None known.
<b>Reproductive effects</b>	Contains no ingredient listed as toxic to reproduction
<b>Teratogenicity</b>	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
<b>Symptoms and target organs</b>	Irritant effects.

## 12. Ecological Information

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<b>Ecotoxicity</b>	This product has no known eco-toxicological effects.
<b>Environmental effects</b>	Ecological injuries are not known or expected under normal use. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
<b>Aquatic toxicity</b>	This material is not expected to be harmful to aquatic life.
<b>Persistence and degradability</b>	Not known.
<b>Partition coefficient (n-octanol/water)</b>	Not available

## 13. Disposal Considerations

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<b>Disposal instructions</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Contaminated packaging</b>	Offer rinsed packaging material to local recycling facilities. Since emptied containers retain product residue, follow label warnings even after container is emptied.

## 14. Transport Information

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<b>DOT</b>	Not regulated as dangerous goods.
<b>IATA</b>	Not regulated as dangerous goods.
<b>IMDG</b>	Not regulated as dangerous goods.

## 15. Regulatory Information

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<b>US federal regulations</b>	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  This product is not listed on the U.S. EPA TSCA Inventory. Under TSCA, hydrates are considered mixtures of their anhydrous salt and water. Accordingly, the anhydrous form is subject to TSCA reporting requirements.
<b>CERCLA (Superfund) reportable quantity</b>	None

## Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories**  
Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**Section 311 hazardous chemical**  
Yes

## Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**State regulations** This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**Saf-T-Data**  
Health: 1 - Slight  
Flammability: 0 - None  
Reactivity: 1 - Slight  
Contact: 2 - Moderate  
Lab Protective Equip: B - GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES  
Storage Color Code: G - Green (General Storage)

## 16. Labeling Info

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**Label Hazard Warning** CAUTION

Product dust may be irritating to eyes, skin and respiratory system.

**Label Precautions** Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Use only with adequate ventilation. Wash thoroughly after handling. Keep container closed.

**Label First Aid** Immediately flush eyes with plenty of water for at least 15 minutes. Flush skin thoroughly with water. If gas/fume/vapor/dust/mist from the material is inhaled, remove the affected person immediately to fresh air. If ingestion of a large amount does occur, call a poison control center immediately.

## 17. Other Information

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**NFPA ratings**  
Health: 2  
Flammability: 0  
Instability: 0

**Disclaimer**

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