

# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** Sodium Phosphate, Tribasic, 12-Hydrate

**Other means of identification**

**Synonyms:** Trisodium Phosphate, Dodecahydrate

**Product No.:** 3840, 3836

**Recommended use and restriction on use**

**Recommended use:** Not available.

**Restrictions on use:** Not known.

**Details of the supplier of the safety data sheet**

**Manufacturer**

**Company Name:** Avantor Performance Materials, Inc.  
**Address:** 3477 Corporate Parkway, Suite 200  
Center Valley, PA 18034

**Telephone:** Customer Service: 855-282-6867

**Fax:** 610-573-2610  
**Contact Person:** Environmental Health & Safety  
**E-mail:** info@avantormaterials.com

**Emergency telephone number:**

24 Hour Emergency: 908-859-2151  
Chemtrec: 800-424-9300

## 2. Hazard(s) identification

**Hazard Classification**

**Health Hazards**

Skin Corrosion/Irritation	Category 1B
Serious Eye Damage/Eye Irritation	Category 1

**Label Elements**

**Hazard Symbol:**



**Signal Word:** Danger

**Hazard Statement:** Causes severe skin burns and eye damage.

**Precautionary Statement**

<b>Prevention:</b>	Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapors/spray.
<b>Response:</b>	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>Storage:</b>	Store locked up.
<b>Disposal:</b>	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
<b>Other hazards which do not result in GHS classification:</b>	None.

### 3. Composition/information on ingredients

#### Substances

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
PHOSPHORIC ACID, TRISODIUM SALT, DODECAHYDRATE		10101-89-0	98 - 100%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4. First-aid measures

<b>General information:</b>	Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.
<b>Ingestion:</b>	Rinse mouth thoroughly. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Inhalation:</b>	Move to fresh air. Get medical attention if symptoms persist.
<b>Skin Contact:</b>	Wash skin thoroughly with soap and water. Get medical attention immediately. Wash contaminated clothing before reuse.
<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 immediately.

#### Most important symptoms/effects, acute and delayed

**Symptoms:** Irritating to eyes, respiratory system and skin.

#### Indication of immediate medical attention and special treatment needed

**Treatment:** Treat symptomatically. Symptoms may be delayed.

### 5. Fire-fighting measures

**General Fire Hazards:** In case of fire and/or explosion do not breathe fumes.

## Suitable (and unsuitable) extinguishing media

**Suitable extinguishing media:** Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** None known.

**Specific hazards arising from the chemical:** During fire, gases hazardous to health may be formed.

## Special protective equipment and precautions for firefighters

**Special fire fighting procedures:** Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. Cool containers exposed to flames with water until well after the fire is out.

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** Ventilate closed spaces before entering them. See Section 8 of the SDS for Personal Protective Equipment. Keep unauthorized personnel away. Avoid inhalation of dust. Avoid contact with spilled material.

**Methods and material for containment and cleaning up:** Sweep up and place in a clearly labeled container for chemical waste. Clean surface thoroughly to remove residual contamination.

**Notification Procedures:** Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved.

**Environmental Precautions:** Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

## 7. Handling and storage

**Precautions for safe handling:** Avoid inhalation of dust. Wash thoroughly after handling. Use personal protective equipment as required. Avoid contact with eyes. Avoid contact with skin.

**Conditions for safe storage, including any incompatibilities:** Keep containers tightly closed. Store in cool, dry place. Store in a well-ventilated place.

## 8. Exposure controls/personal protection

### Control Parameters

#### Occupational Exposure Limits

None of the components have assigned exposure limits.

#### Appropriate Engineering Controls

No data available.

## Individual protection measures, such as personal protective equipment

<b>General information:</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. An eye wash and safety shower must be available in the immediate work area.
<b>Eye/face protection:</b>	Wear safety glasses with side shields (or goggles). Use tight fitting goggles if dust is generated.
<b>Skin Protection</b>	
<b>Hand Protection:</b>	Wear protective gloves.
<b>Other:</b>	Wear suitable protective clothing.
<b>Respiratory Protection:</b>	In case of inadequate ventilation use suitable respirator.
<b>Hygiene measures:</b>	Provide eyewash station and safety shower. Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Do not eat, drink or smoke when using the product. Take off contaminated clothing and wash before reuse.

## 9. Physical and chemical properties

### Appearance

<b>Physical state:</b>	solid
<b>Form:</b>	Crystalline Powder.
<b>Color:</b>	White
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Melting point/freezing point:</b>	73 °C
<b>Initial boiling point and boiling range:</b>	100 °C
<b>Flash Point:</b>	not applicable
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</b>	No data available.
<b>Relative density:</b>	1.62 (20 °C)
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	283 g/l (20 °C)
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.

### Other information

**Molecular weight:** 380.12 g/mol (H<sub>3</sub>O<sub>4</sub>P.12H<sub>2</sub>O.3Na)

## 10. Stability and reactivity

<b>Reactivity:</b>	No dangerous reaction known under conditions of normal use.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of Hazardous Reactions:</b>	Hazardous polymerization does not occur.
<b>Conditions to Avoid:</b>	Reacts violently with strong acids. Heat, sparks, flames. Contact with incompatible materials.
<b>Incompatible Materials:</b>	Acids. Strong oxidizing agents.
<b>Hazardous Decomposition Products:</b>	Sodium oxides oxides of phosphorus

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion:</b>	May be harmful if swallowed.
<b>Inhalation:</b>	May be harmful if inhaled.
<b>Skin Contact:</b>	Causes severe skin burns.
<b>Eye contact:</b>	Causes serious eye damage.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

<b>Oral</b>	
<b>Product:</b>	LD 50 (Rat): 7,400 mg/kg
<b>Dermal</b>	
<b>Product:</b>	LD 50 (Rabbit): >= 2,000 mg/kg
<b>Inhalation</b>	
<b>Product:</b>	LD 50 (Rat, 1 h): estimated 2.16 mg/l
<b>Repeated dose toxicity</b>	
<b>Product:</b>	No data available.

<b>Skin Corrosion/Irritation</b>	
<b>Product:</b>	Causes severe skin burns.

<b>Serious Eye Damage/Eye Irritation</b>	
<b>Product:</b>	Causes serious eye damage.

<b>Respiratory or Skin Sensitization</b>	
<b>Product:</b>	Not a skin sensitizer.

<b>Carcinogenicity</b>	
<b>Product:</b>	This substance has no evidence of carcinogenic properties.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**

No carcinogenic components identified

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

No carcinogenic components identified

**Germ Cell Mutagenicity**
**In vitro**
**Product:** No mutagenic components identified

**In vivo**
**Product:** No mutagenic components identified

**Reproductive toxicity**
**Product:** No components toxic to reproduction

**Specific Target Organ Toxicity - Single Exposure**
**Product:** None known.

**Specific Target Organ Toxicity - Repeated Exposure**
**Product:** None known.

**Aspiration Hazard**
**Product:** Not classified

**Other effects:** None known.

<b>12. Ecological information</b>
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**Ecotoxicity:**
**Acute hazards to the aquatic environment:**
**Fish**
**Product:** No data available.

**Specified substance(s):**

PHOSPHORIC ACID,	LC 50 (Western mosquitofish ( <i>Gambusia affinis</i> ), 24 h): 88.3 mg/l Mortality
TRISODIUM SALT,	LC 50 (Western mosquitofish ( <i>Gambusia affinis</i> ), 96 h): 28.5 mg/l Mortality
DODECAHYDRATE	LC 50 (Zambezi barbel ( <i>Clarias gariepinus</i> ), 96 h): 748.1695 mg/l Mortality

**Aquatic Invertebrates**
**Product:** No data available.

**Chronic hazards to the aquatic environment:**
**Fish**
**Product:** No data available.

**Aquatic Invertebrates**
**Product:** No data available.

**Toxicity to Aquatic Plants**
**Product:** No data available.

**Persistence and Degradability**
**Biodegradation**

**Product:** There are no data on the degradability of this product.

**BOD/COD Ratio**

**Product:** No data available.

**Bioaccumulative Potential**

**Bioconcentration Factor (BCF)**

**Product:** No data available on bioaccumulation.

**Partition Coefficient n-octanol / water (log Kow)**

**Product:** No data available.

**Mobility in Soil:** The product is water soluble and may spread in water systems.

**Other Adverse Effects:** The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms.

### 13. Disposal considerations

**Disposal instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Contaminated Packaging:** Since emptied containers retain product residue, follow label warnings even after container is emptied.

### 14. Transport information

**DOT**

UN Number:	UN 3262
UN Proper Shipping Name:	Corrosive solid, basic, inorganic, n.o.s.(SODIUM PHOSPHATE, TRIBASIC, 12-HYDRATE)
Transport Hazard Class(es)	
Class(es):	8
Label(s):	8
Packing Group:	III
Marine Pollutant:	Not a Marine Pollutant
Special precautions for user:	—

**IMDG**

UN Number:	UN 3262
UN Proper Shipping Name:	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S.(SODIUM PHOSPHATE, TRIBASIC, 12-HYDRATE)
Transport Hazard Class(es)	
Class(es):	8
Label(s):	8
EmS No.:	F-A, S-B
Packing Group:	III
Marine Pollutant:	Not a Marine Pollutant
Special precautions for user:	—

**IATA**

UN Number:	UN 3262
Proper Shipping Name:	Corrosive solid, basic, inorganic, n.o.s.(SODIUM PHOSPHATE, TRIBASIC, 12-HYDRATE)
Transport Hazard Class(es):	
Class(es):	8
Label(s):	8
Marine Pollutant:	Not a Marine Pollutant
Packing Group:	III
Special precautions for user:	—

**15. Regulatory information**
**US Federal Regulations**
**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**
**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

None present or none present in regulated quantities.

**CERCLA Hazardous Substance List (40 CFR 302.4):**

<u>Chemical Identity</u>	<u>Reportable quantity</u>
PHOSPHORIC ACID,	5000 lbs.
TRISODIUM SALT,	
DODECAHYDRATE	

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**
**Hazard categories**

Acute (Immediate)

Chronic (Delayed)

**SARA 302 Extremely Hazardous Substance**

None present or none present in regulated quantities.

**SARA 304 Emergency Release Notification**

<u>Chemical Identity</u>	<u>Reportable quantity</u>
PHOSPHORIC ACID,	5000 lbs.
TRISODIUM SALT,	
DODECAHYDRATE	

**SARA 311/312 Hazardous Chemical**

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
PHOSPHORIC ACID,	10000 lbs
TRISODIUM SALT,	
DODECAHYDRATE	

**SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

<u>Chemical Identity</u>	<u>Reportable quantity</u>
SODIUM PHOSPHATE,	Reportable quantity: 5000 lbs.
TRIBASIC	

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

None present or none present in regulated quantities.

**US State Regulations**
**US. California Proposition 65**

No ingredient regulated by CA Prop 65 present.

**US. New Jersey Worker and Community Right-to-Know Act**

**Chemical Identity**

PHOSPHORIC ACID, TRISODIUM SALT, DODECAHYDRATE

**US. Massachusetts RTK - Substance List**

**Chemical Identity**

PHOSPHORIC ACID, TRISODIUM SALT, DODECAHYDRATE

**US. Pennsylvania RTK - Hazardous Substances**

**Chemical Identity**

PHOSPHORIC ACID, TRISODIUM SALT, DODECAHYDRATE

**US. Rhode Island RTK**

**Chemical Identity**

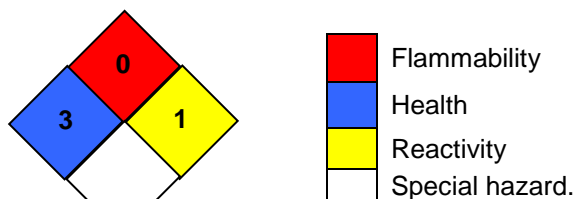
PHOSPHORIC ACID, TRISODIUM SALT, DODECAHYDRATE

**Inventory Status:**

Canada DSL Inventory List:	On or in compliance with the inventory
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
Japan (ENCS) List:	On or in compliance with the inventory
China Inv. Existing Chemical Substances:	On or in compliance with the inventory
Canada NDSL Inventory:	Not in compliance with the inventory.
Japan ISHL Listing:	Not in compliance with the inventory.
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.
Australia AICS:	On or in compliance with the inventory
EINECS, ELINCS or NLP:	On or in compliance with the inventory
Philippines PICCS:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or in compliance with the inventory

**16. Other information, including date of preparation or last revision**

**NFPA Hazard ID**



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

<b>Issue Date:</b>	04-22-2015
<b>Revision Date:</b>	No data available.
<b>Version #:</b>	1.0
<b>Further Information:</b>	No data available.

**Disclaimer:**

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