

Material Safety Data Sheet (MSDS) -

Tri Sodium phosphate

1. Chemical Product and Company Identification

Product Name : Tri Sodium phosphate
Catalog Codes : SLS2650, SLS4072
CAS# : 7601-54-9
RTECS : TC9490000
TSCA : TSCA 8(b) inventory: Sodium phosphate tribasic
CI# : Not available.
Synonym : Trisodium Phosphate Anhydrous; Phosphoric

Acid, Trisodium Salt; Trisodium Orthophosphate

Chemical Name: Sodium Phosphate Tribasic

Chemical Formula: Na₃PO₄

COMPANY IDENTIFICATION

Supplier:

Pure Chemicals Group.

CHENNAI, TAMILNADU, INDIA

24 Hour Health Emergency

(91) 8939878447

(91) 9444038694

Transportation Emergency Phone

(91) 8939768680

Company Name	Place	EMERGENCY TELEPHONE NUMBER
Pure Chemicals Group.	India	Day Emergency – 044-26161803-26161809

2. Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Tri Sodium phosphate	7601-54-9	100

Toxicological Data on Ingredients: Sodium phosphate tribasic: ORAL (LD50): Acute: 4150 mg/kg [Rat [information from other supplier]]. DERMAL (LD50): Acute: >7940 mg/kg [Rabbit [information from other supplier]]. >300 mg/kg [Rabbit [Registry of Toxic Effects of Chemical Substances database]].

3: Hazards Identification

Potential Acute Health Effects:

Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator). Corrosive to eyes and skin. The amount of tissue damage depends on length of contact. Eye contact can result in corneal damage or blindness. Skin contact can produce inflammation and blistering. Inhalation of dust will produce irritation to gastrointestinal or respiratory tract, characterized by burning, sneezing and coughing. Severe over-exposure can produce lung damage, choking, unconsciousness or death.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated skin exposure can produce local skin destruction, or dermatitis. Repeated inhalation of dust can produce varying degree of respiratory irritation or lung damage.

4. First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

Skin Contact:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Serious Inhalation: Not available.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion: Not available.

5. Fire and Explosion Data

Flammability of the Product : Non-flammable.

Auto-Ignition Temperature : Not applicable.

Flash Points : Not applicable.

Flammable Limits : Not applicable.

Products of Combustion : Not available.

Fire Hazards in Presence of Various Substances: Not applicable.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. Slightly explosive in presence of heat.

Fire Fighting Media and Instructions: Not applicable.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Containers may explode when heated

6. Accidental Release Measures

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. If necessary: Neutralize the residue with a dilute solution of acetic acid. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Corrosive solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Neutralize the residue with a dilute solution of acetic acid. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

7: Handling and Storage

Precautions:

Keep container dry. Do not ingest. Do not breathe dust. Never add water to this product. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as moisture.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 23°C (73.4°F).

8. Exposure Controls/Personal Protection

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection: Safety glasses. Synthetic apron. Gloves (impervious).

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:

TWA: 15 (mg/m³) from OSHA (PEL) [United States] Inhalation Total.

TWA: 5 (mg/m³) from OSHA (PEL) [United States] Inhalation Respirable.

TWA: 5 STEL: 5 (mg/m³) from AIHA Inhalation Consult local authorities for acceptable exposure limits.

9. Physical and Chemical Properties

Physical state and appearance	: Solid.
Odor	: Odorless.
Taste	: Not available.
Molecular Weight	: 163.94 g/mole
Color	: White.
pH (1% soln/water)	: 11.9 [Basic.]
Boiling Point	: Not available.
Melting Point	: 75°C (167°F)
Critical Temperature	: Not available.

Specific Gravity : 1.62 (Water = 1)
Vapor Pressure : Not applicable.
Vapor Density : Not available.
Volatility : Not available.
Odor Threshold : Not available.
Water/Oil Dist. Coeff. : Not available.
Ionicity (in Water): Not available.
Dispersion Properties : See solubility in water.

Solubility:

Easily soluble in hot water. Soluble in cold water.

10. Stability and Reactivity Data

Stability : The product is stable.
Instability Temperature : Not available.
Conditions of Instability : Moisture
Incompatibility with various substances: Reactive with moisture.
Corrosivity : Non-corrosive in presence of glass.
Special Remarks on Reactivity: Hygroscopic. Sodium Phosphate Tribasic forms a strong caustic solution similar to soda lye
Special Remarks on Corrosivity: When wet, mild steel and brass may be corroded by sodium phosphate tribasic.
Polymerization : Will not occur.

11. Toxicological Information

Routes of Entry : Absorbed through skin. Inhalation. Ingestion.

Toxicity to Animals:

Acute oral toxicity (LD50): 4150 mg/kg [Rat [information from other supplier]]. Acute dermal toxicity (LD50): >300 mg/kg [Rabbit [Registry of Toxic Effects of Chemical Substances database]].

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans:

Extremely hazardous in case of skin contact (corrosive), of eye contact (corrosive), of inhalation (lung corrosive). Hazardous in case of skin contact (irritant), of ingestion, . Slightly hazardous in case of skin contact (permeator).

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: May affect genetic material (mutagenic)

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Skin: Causes skin irritation with possible burning pain and corrosive damage. It may be absorbed through the skin. Eyes: Causes eye irritation. It causes immediate and severe pain followed by conjunctival edema and corneal clouding. Later cataract formation may occur. This substance may cause eye burns. Inhalation: May be harmful if inhaled. Inhalation of dust may Cause respiratory tract and mucous membrane irritation with coughing, sneezing, choking, difficulty breathing, and pulmonary edema. Ingestion: May be harmful if swallowed. May cause severe gastrointestinal (digestive) tract irritation with severe nausea, vomiting, abdominal discomfort, violent purging, diarrhea, and burning sensation. Ingestion of large amounts may induce hypocalcemia or hyponatremia characterized by tetanus-like spasms, due to the sequestration of calcium ions by the phosphate moiety. It may also cause caustic burns of the mouth oropharynx, esophagus, or gastrointestinal tract.

12. Ecological Information

Ecotoxicity:

Ecotoxicity in water (LC50): 220 mg/l 96 hours [Bluegill sunfish]. 120 mg/l 96 hours [Rainbow Trout]. 177 mg/l 50 hours [Daphnia].

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are as toxic as the original product.

Special Remarks on the Products of Biodegradation: Not available.

13. Disposal Considerations

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. Transport Information

DOT Classification : Not a DOT controlled material (United States).

Identification : : Not available. UNNA: 9148 PG: III

Special Provisions for Transport: Not applicable.

15. Other Regulatory Information

Federal and State Regulations:

New York release reporting list: Sodium phosphate tribasic Pennsylvania RTK: Sodium phosphate tribasic Minnesota: Sodium phosphate tribasic Massachusetts RTK: Sodium phosphate tribasic New Jersey: Sodium phosphate tribasic California Director's List of Hazardous Substances: Sodium phosphate tribasic TSCA 8(b) inventory: Sodium phosphate tribasic CERCLA: Hazardous substances.: Sodium phosphate tribasic: 5000 lbs. (2268 kg)

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): CLASS E: Corrosive solid.

DSCL (EEC):

R35- Causes severe burns. S1/2- Keep locked up and out of the reach of children. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/37- Wear suitable protective clothing and gloves. S39- Wear eye/face protection. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

HMIS (U.S.A.):

Health Hazard	: 2
Fire Hazard	: 0
Reactivity	: 0
Personal Protection	: C

National Fire Protection Association (U.S.A.):

Health	: 2
Flammability	: 0
Reactivity	: 2

Specific hazard:

Protective Equipment:

Gloves (impervious). Synthetic apron. Wear appropriate respirator when ventilation is inadequate. Safety glasses.

16. Other Information

Disclaimer:

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