

Safety Data Sheet

TSP - TRISODIUM PHOSPHATE

Date of Revision: 2/11/2015

Section 1 – Chemical Product and Company Identification

Product/Chemical Name: Trisodium Phosphate dodecahydrate

Chemical Formula: Na₃PO₄*12H₂O

CAS Number: 10101-89-0

Other Designations: TSP; trisodium orthophosphate; tribasic; tertiary sodium phosphate; trisodium phosphate

Derivation: Prepared by combining proper proportions of phosphoric acid and soda to form disodium phosphate, then adding a caustic soda

Supplied by:
PRO Chemical & Dye
126 Shove Street
Fall River, MA 02724

Emergency Telephone Numbers:
800-255-3924 ChemTel. (United States)
+ 1 01 813-248-0585 (Outside the United States)
1.

Section 2 - Hazards Identification

***** Emergency Overview *****

MAY CAUSE EYE INJURY. CAUSES SKIN IRRITATION. MAYBE HARMFUL IF SWALLOWED.

Potential Health Effects

Primary Entry Routes: Inhalation, ingestion or skin contact.

Target Organs: Skin, digestive tract.

HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA DCS)

Skin corrosion (Category I B). H314

Serious eye damage (Category I). H318

GHS Label elements, including precautionary statements

Pictogram



Signal word Danger

Hazard statement(s)

H314 Causes severe skin burns and eye damage.

Precautionary Statement(s)

P260 Do not breathe dust or mist.

HMIS

H 3

F 0

R 0

PPE

Sec. 8

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves protective clothing/ eye protection/ face protection.

P301 + P330 + P331 IF SWALLOWED: rinse mouth. **DO NOT** induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Remove. Take off immediately all contaminated clothing. Rinse skin with water / shower.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 Immediately call a POISON CENTER or doctor/ physician.

P321 Specific treatment (see supplemental first aid instructions on this label)

P363 Wash contaminated clothing before reuse.

P405 Store locked up.

P501 Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS -
none

Acute Effects

Inhalation: May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema.

Eye: May cause severe eye irritation. May result in corneal injury.

Skin: May cause severe irritation and possible burns.

Ingestion: May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns.

Ingestion: May cause severe Gastrointestinal tract irritation with nausea, vomiting and possible burns.

Carcinogenicity: IARC, NTP, and OSHA do not list Trisodium Phosphate as a carcinogen.

Medical Conditions Aggravated by long term exposure:

Chronic Effects: Prolonged or repeated eye and skin contact caused irritation. Injury due to the esophagus from scarring may occur. Alkali exposures may necessitate irrigation for extended duration.

Section 4- First Aid Measures

Inhalation: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical treatment.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eye lids. Get medical aid immediately. Do not allow victim to rub or close eyes.

Skin Contact: Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately. After first aid, get appropriate in-plant paramedic, or community medical support

Note to Physicians: Treat symptomatically and supportively.

Section 5- Fire Fighting Measures

Flashpoint: noncombustible

Burning rate: N/A

Autoignition Temperature: noncombustible

LEL: N/A

UEL: N/A

Flammability Classification: noncombustible

Extinguishing Media: Use what is appropriate to the surrounding fire since this material is noncombustible. Unusual fire or Explosion Hazards: In a fire situation at high temperature, phosphates can emit highly toxic phosphorous oxides (PO₃) fumes.

Fire- Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.

Fire – fighting equipment: Because fire may produce toxic thermal decomposition products, wear a self contained breathing apparatus (SCBA) with a full face- piece operated in pressure- demand or positive – pressure mode.

Section 6- Accidental release Methods

Cleanup personnel should wear the necessary personal protective equipment to prevent skin or eye contact and dust inhalation.

Small spills: vacuum or sweep up material and place into a suitable disposal container.

Large spills:

Containment: Dike with inert absorbent material, as needed to contain and limit spill area. Sweep, vacuum , or scoop the spilled solid , avoiding dust generation, into a suitable disposal container(with secure lid). Do not release into sewers or waterways.

Cleanup: Flush residues to drain with plenty of water.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Handling Precautions: Wash thoroughly after handling. Minimize dust generation and accumulation. Avoid contact with eyes, skin and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage Requirements: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls / Personal Protection

Engineering Controls: Avoid dust inhalation, body contact, contact with acidic materials, and heating to decomposition.

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs

(Sec.2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Administrative Controls:

Respiratory Protection: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations, (cleaning spills. reactor vessels. or storage tanks), wear an SCBA.

Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Protective Clothing/Equipment: Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of or in conjunction with contact lenses.

Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse.



Remove this material from your shoes and clean personal protective equipment.

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9 - Physical and Chemical Properties

Physical State: solid

Appearance and Odor: white/ off white
crystals
/powder/granules -
odorless

Odor Threshold:

Vapor Pressure:

Vapor Density (Air=1):

Formula Weight:

380.12

Density:

Specific Gravity (H₂O=1, at 4 °C): 1.62
g/cm

pH:

Water

Solubility: soluble

Other Solubilities:

Boiling Point: at 212 °F (100 °C) (decomposes)

Freezing/Melting Point: 32.0 °F (0.0 °C) to 170.1 °F (73.3 °C)

Viscosity:

Refractive Index:

Surface

Tension:

% Volatile:

Evaporation Rate:

Section 10: Stability and Reactivity

Stability: Trisodium Phosphate is stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization: Hazardous polymerization will not occur.

Chemical Incompatibilities: This strong caustic material reacts violently with water and strong acids to generate heat.

Conditions to Avoid: Never heat to decomposition.

Hazardous Decomposition Products: Thermal oxidative decomposition of Trisodium Phosphate can produce highly toxic fumes of phosphorus oxides (PO₃) and sodium oxide (Na₂O).

Section 11- Toxicological Information

Toxicity data:

Rabbit, intravenous, LD₅₀: 1580mg/kg

Acute Inhalation Effects:

Human inhalation. TCLo: ?? ppm

Chronic Effects: no data available

Carcinogenicity: no data available

Mutagenicity: no data available

Teratogenicity: no data available

Acute Oral Effects: Rat. oral. LD50 7400 mg/kg

• See NIOSH RTECS (TC9575000) for additional toxicity data.

Section 12- Ecological information

Ecotoxicity: Aquatic toxicity: 151 ppm/96 hr/mosquito fish/TL.m/Turbid water: 126 ppm/96 hr/daphnia magna/TL.m

Environmental Fate: no data available

Environmental Degradation: no data available

Soil Absorption/Mobility: no data available

Section 13 - Disposal Considerations

Disposal: Scrap material can be used for neutralizing acid wastes or buried in an approved landfill if regulations permit. You may flush *small* amounts to drain with large excess of water. Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state and local regulations.

Disposal Regulatory Requirements:

Container Cleaning and Disposal

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101): Not Regulated."

*(If shipping package is equal to or exceeds 5000 lbs. then product is hazard class 9, shipping name: Environmentally Hazardous substance, Solid. 11.0.S. (sodium Phosphate, Tribasic); UN3077.)

US DOT (49 CFR 172.101) see above

PSN:

Hazard Class:

UN Number

Packing Group

IATA PSN: Corrosive solid, basic inorganic, n.o.s (sodium phosphate tribasic dodecahydrate)

Hazard Class: 8

UN Number UN3262

Packing Group: 111

TDG

PSN: Corrosive solid, basic inorganic, n.o.s.(Sodium Phosphate tribasic dodecahydrate)

Hazard Class:8

UN Number: UN3262

Packing group: 111

IMDG/IMO

PSN: Corrosive Solid, basic inorganic, nos(Sodium phosphate tribasic dodecahydrate).

Hazard Class: 8

UN Number : Un 3262

Packing group :111

Section 15- Regulatory Information

US FEDERAL

TSCA

CAS # 10101-89-0 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed is the CAS # for anhydrous form is on the inventory (40CFR720.3(u)(2))

CAS # 7601-54-9 is listed on the TSCA inventory.

Health and Safety Reporting List

None of the chemicals are on the Health and Safety Reporting List

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12B

None of the chemicals are listed under TSCA Section 12B.

TSCA Significant New Use Rule

None of the chemicals in this material have an NSUR under TSCA.

CERCLA Hazardous Substance and Corresponding RQs

CAS # 10101-89-0:5000lb final RQ(listed under Sodium phosphate, tribasic) 2270kg final RQ(li) CAS# 7601-54-9:5000lb final RQ (listed under Sodium phosphate tribasic) 2270kg final RQ li

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS# 10101-89-0: immediate

CAS# 7601-54-9: immediate

Section 313 : No chemicals are reportable under section 313.

Clean Air Act

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

CAS# 10101-89-0 is listed as a Hazardous Substance under the CW A. C AS# 7601-54-9 is listed as a Hazardous Substance under the CWA.

None of the chemicals in this product arc listed as Priority Pollutants under the CW A.

None of the chemicals in this product arc listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE:

CAS# 10101-89-0 can be found on the following state right to know lists: California. New Jersey. Pennsylvania. Massachusetts.

CAS# 7601-54-9 can be found on the following state right to know lists: California. New Jersey. Pennsylvania. Minnesota, Massachusetts.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product arc listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

XI

Risk Phrases:

R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 37/39 Wear suitable gloves and eye/ face protection

WGK (Water Danger protection)

CAS# 10101-89-0:1

CAS#7601-54-9:1

Canada- DSL/NDSL

CAS#7601-54-9 is listed on Canada's DSL list.

Canada- WHMIS

This product has a WHMIS classification of 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.

Canadian Ingredient Disclosure List.**Section 16- Other Information**

Disclaimer: All information, recommendations and suggestions appearing herein are based upon sources believed to be reliable: However, it is the users' responsibility to determine safety, toxicity, and suitability for its own use of this product. **The manufacturer does not assume any liability arising out of the use by others of this product.**

