



Occidental Chemical Corporation
Industrial & Specialty Chemicals Division

MSDS 592

MATERIAL SAFETY DATA SHEET

Product Information

Product Name (URN CLEANER)
TRISODIUM PHOSPHATE, CRYSTALLINE

CAS Registry Number
7601-54-9

#4929329
200/7502

Common Name or Synonym

Trisodium phosphate dodecahydrate,
Trisodium orthophosphate
Sodium phosphate, tribasic

Chemical Family

Inorganic phosphate

Chemical Name

Phosphoric acid, trisodium salt

Chemical Formula

$\text{Na}_3\text{PO}_4 \cdot 12 \text{H}_2\text{O}$

Health Data

First Aid Measures

Eye Contact: Immediately, flush eyes with a directed stream of water for at least 15 minutes. Forcibly hold eyelids apart to ensure complete irrigation of all eye and lid tissue. GET IMMEDIATE MEDICAL ATTENTION. Contact lenses should not be worn when working with this chemical.

artificial respiration. Keep the affected person warm and at rest. Get medical attention as soon as possible.

Note To Physician: If symptoms indicate, carry out treatment as appropriate for corrosive alkali/phosphate substance.

Skin Contact: Immediately flush contaminated skin with water. If this chemical penetrates clothing, immediately remove the clothing and flush the skin with water. Get prompt medical attention if irritation occurs. Wash clothing before reuse.

Effects of Overexposure: Trisodium phosphate is irritating to the skin, eyes, respiratory and gastrointestinal tracts. Exposure may cause chemical burns to tissues including the eye, skin, and respiratory and gastrointestinal tracts.

Ingestion: If person is conscious immediately administer large quantities of water. DO NOT INDUCE VOMITING. GET IMMEDIATE MEDICAL ATTENTION.

Toxicity: Oral LD_{50} (rat) - 4,150 mg/kg, slightly toxic

Dermal LD_{50} (rabbit) - < 7,940 mg/kg, practically nontoxic

Eye Irritation (rabbit) - (FSHA) corrosive

Skin Irritation (rabbit) - (FSHA) 2.2 on a scale of 8.0, slightly irritating.

Inhalation: Move the exposed person to fresh air at once. If breathing has stopped perform

MATERIAL SAFETY DATA SHEET**Ingredients**

	Percent	Threshold Limit Value
$\text{Na}_3\text{PO}_4 \cdot 12\text{H}_2\text{O}$	99.6	No TLY [®] limits have been established for this material. See additional information section for suggested limits for dust control.

Hazardous Reactivity

Incompatibility: Water solutions are highly alkaline. Solution may liberate flammable hydrogen gas in presence of aluminum.

Conditions To Avoid: Solutions of Trisodium phosphate in the presence of aluminum may generate flammable hydrogen gas.

Handling and Storage

Precautions: Store in a dry area and keep containers closed to prevent moisture pick-up and caking. The product is slightly hygroscopic.

Wear appropriate protective clothing and safety equipment when handling. Material is corrosive when wet.

Environmental Protection

Procedure In Case Of Spill Or Release: Scoop and sweep up all spilled product, contaminated soil and other contaminated materials and place in marked disposal containers. If possible, clean up spill area on a dry basis and then flush with plenty of water.

Waste Disposal Method: Dispose of spilled or waste product, contaminated soil and other contaminated materials in licensed landfill or treatment facility in accordance with all local, state and federal regulations.

Regulatory Status

Trisodium phosphate is contained on a composite list as required under §101(14) of the Comprehensive Environmental Response, Compensation And Liability Act (CERCLA) usually referred to as Superfund. The list includes substances designated pursuant to §311 of the Clean Water Act, Hazardous Waste under §3001 of the Solid Waste Disposal Act (RCRA), toxic pollutants under §307 of the Clean Water Act, hazardous air pollutants under §112 of the Clean Air Act, imminently hazardous chemicals determined under §7 of TSCA and substances designated pursuant to §102 of CERCLA.

OSHA Standard 29 CFR §1910.1200 Hazard Communication requires that information be provided to employees concerning hazardous chem-

icals by means of a hazard communication program including container labels, Material Safety Data Sheet literature, training and access to written records.

§311 of the Clean Water Act lists Trisodium phosphate as a hazardous substance which, if discharged into or upon water, may require immediate response to mitigate danger to public health and welfare. The Act specifies procedures to be followed in the event of accidental spillage as well as civil penalties and fines to be levied. Spills of 5,000 or more pounds must be reported to the National Response Center, 1-800-424-8802.

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Fire and Explosion Hazard Data

Flash Point: Non-flammable

Extinguishing Media: As appropriate for materials in surrounding fire.

Special Fire Fighting Procedure & Personal Protection: Trisodium phosphate is not combustible. Use extinguishing agents as appropriate for materials in surrounding fire.

Unusual Fire and Explosion Hazards: Under fire conditions, Trisodium phosphate will not support combustion.

Special Protection

Ventilation: Provide good general room ventilation to minimize exposure. Use local exhaust ventilation at points of dust emission.

Eye Protection: Wear safety glasses with side shields or chemical goggles.

Respiratory: Use NIOSH/MSHA approved dust respirator for areas where airborne exposure is excessive.

Other Protective Equipment: Eye wash facility should be in close proximity. Use of coveralls and emergency shower availability are suggested.

Gloves: Wear protective gloves (such as rubber and canvas) to minimize skin contact.

Physical Data

Boiling Point
Over 1000°C

Bulk Density
54-60 lbs/cu. ft.

Solubility in Water
29.5% @ 25°C

pH
(1% solution) 12.0

Appearance and Color
White, free-flowing granular material containing about 52% water of crystallization.

Melting Point
Decomposes

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Regulatory Status Continued

The shipment of Trisodium phosphate is regulated by the U.S. Department of Transportation. It is classified as ORM-E, requires a DOT label and is assigned UN 9148 as an international identification number (49 CFR § 172.101).

Information contained in this section is provided as a service and while based on generally available resources and information should not be

considered to be an all-inclusive regulatory bibliography of the product, particularly regarding non-federal laws and regulations. Users are advised to check with state and local authorities concerning any applicable regulations regarding transportation, handling, use or disposal of this product.

Additional Information

Trisodium phosphate is listed in the TSCA Chemical Substance Inventory under CAS No. 7601-54-9.

See OCC Product Data Sheet 909 for product specifications, packaging and other information.

Hazard ratings according to the Hazardous Materials Identifications System (HMIS) developed by the National Paint and Coatings Association are:

Health, 1	Flammability, 0;
Reactivity, 0;	Personal Protection, E.

Although no specific exposure limits have been established for Trisodium phosphate, it is suggested that the following OSHA and ACGIH

established limits for nuisance dusts be observed:
OSHA PEL/TWA: Total 15 mg/m³;
Respirable 5 mg/m³
ACGIH TLV/TWA: Total 10 mg/m³;
Respirable 5 mg/m³

Trisodium phosphate may cause eye and skin irritation at concentration levels below these limits established for nuisance dusts.

For additional non-emergency information, contact Technical Service, Occidental Chemical Corporation, Industrial & Specialty Chemicals Division, 716/286-3000.

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Occidental Chemical Corporation
Industrial & Specialty Chemicals Division

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