

# SAFETY DATA SHEET

## TRISODIUM PHOSPHATE CRYSTAL TECH

Product ID: PO202102

Revised: 04-09-2014

Replaces: 07-27-2009

### 1. IDENTIFICATION

**Product Name:** TRISODIUM PHOSPHATE CRYSTAL TECH  
**Synonyms:** TSP Crystals; Trisodium Phosphate Dodecahydrate; Phosphoric Acid, trisodium salt dodecahydrate  
**CAS Number:** 10101-89-0  
**Recommended Use:** No data available.  
**Restrictions on Use:** No data available.

Hydrite Chemical Co.  
300 N. Patrick Blvd.  
Brookfield, WI 53008-0948  
(262) 792-1450

**EMERGENCY RESPONSE NUMBERS:**  
**24 Hour Emergency #: (414) 277-1311**  
**CHEMTREC Emergency #: (800) 424-9300**

### 2. HAZARD(S) IDENTIFICATION



**Signal Word:** Danger

**GHS Classification:** Serious Eye Damage/Eye Irritation Category 1  
Skin Corrosion/Irritation Category 2

**Hazard Statements:** Causes skin irritation.  
Causes serious eye damage.

**Precautionary Statements:**

**Prevention:** Wash thoroughly after handling.  
Wear gloves, eye and face protection and protective clothing.

**Response:** IF ON SKIN: Wash with plenty of soap and water.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Immediately call a POISON CENTER or doctor/physician.  
Specific treatment (see First Aid on SDS or on this label).  
If skin irritation occurs: Get medical advice or attention.  
Take off contaminated clothing and wash before reuse.

**Hazards Not Otherwise Classified:** None known.

**Percentage of Components with Unknown Acute Toxicity:**

<b>Oral:</b>	100.0 %
<b>Dermal:</b>	100.0 %
<b>Inhalation Vapor:</b>	100.0 %
<b>Inhalation Dust/Mist:</b>	100.0 %

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

## TRISODIUM PHOSPHATE CRYSTAL TECH

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<u>Component</u>	<u>CAS Number</u>	<u>% by Wt.</u>
Trisodium Phosphate Dodecahydrate	10101-89-0	~ 100 %

### 4. FIRST-AID MEASURES

**Eye Contact:** Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention. Remove contact lens if easy to do.

**Skin Contact:** Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Do not reuse clothing and shoes until cleaned.

**Inhalation:** Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY.

**Ingestion:** If fully conscious, drink a quart of water. DO NOT induce vomiting. CALL A PHYSICIAN IMMEDIATELY. If unconscious or in convulsions, take immediately to a hospital or a physician. NEVER induce vomiting or give anything by mouth to an unconscious victim. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

**Note to Physicians:**

Treatment is symptomatic and supportive.

**Most Important Symptoms/Effects:**

**Eye Contact:** May be corrosive to the eyes. Severe irritation and burns may result. May cause: permanent eye damage. blindness.

**Skin Contact:** May cause moderate to severe irritation. Contact may cause: pain. redness. swelling. blistering. skin damage.

**Skin Absorption:** No more than slightly toxic based on toxicity studies.

**Inhalation:** May cause severe irritation. May irritate: nose. throat. upper respiratory tract. May cause: coughing. chest pain. shortness of breath. May cause damage to the: lungs. respiratory tract.

**Ingestion:** May cause severe irritation. May cause burns to the: mouth. esophagus. May cause: nausea. vomiting. diarrhea. abdominal pain. chest pain. seizures. Aspiration into the lungs may occur during ingestion or vomiting, resulting in severe pulmonary injury.

### 5. FIRE-FIGHTING MEASURES

**Extinguishing Media:** Not combustible. For fires in area use appropriate media. For example: Alcohol foam. Foam. Carbon dioxide. Dry chemical. Water spray.

**Fire Fighting Methods:** Evacuate area of unprotected personnel. Wear protective clothing including NIOSH-Approved self-contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

**Fire and Explosion Hazards:** Material will not ignite or burn.

**Hazardous Combustion Products:** Thermal decomposition may release: Phosphorous oxides. Sodium oxides.

### 6. ACCIDENTAL RELEASE MEASURES

**Spill Clean-Up Procedures:** Evacuate unprotected personnel from area. Maintain adequate ventilation. Follow personal protective equipment recommendations found in Section 8. Never exceed any occupational exposure limit. Sweep up material into containers and dispose of properly. Avoid dust formation. Flush remaining area with water to remove trace residue and dispose of properly. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs.

## 7. HANDLING AND STORAGE

**Handling:** Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink, or smoke in work area. Wash thoroughly after handling. Avoid dust or mist formation.

**Storage:** Store in a cool, well ventilated area, out of direct sunlight. Store in a dry location away from heat. Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers. Protect from moisture. See Section 10 for incompatible materials.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### OSHA Exposure Guidelines:

<u>Component</u>	<u>Limits</u>
No components found.	

### ACGIH Exposure Guidelines:

<u>Component</u>	<u>Limits</u>
No components found.	

### Note:

\* Recommend exposure limits for Particulates Not Otherwise Regulated/Particulates (Insoluble or Poorly Soluble) Not Otherwise Specified: 15 mg/m<sup>3</sup> (Total Dust), 5 mg/m<sup>3</sup> (Respirable Fraction)(OSHA); 3 mg/m<sup>3</sup> (Respirable particles), 10 mg/m<sup>3</sup> (Inhalable particles)(ACGIH).

**Engineering Controls:** General room ventilation is required. To keep exposure below established limits, local exhaust may be necessary. Avoid creating dust or mist. Maintain adequate ventilation. Do not use in closed or confined spaces. Keep levels below exposure limits. To determine exposure levels, monitoring should be performed regularly.

**Eye/Face Protection:** Wear chemical safety goggles while handling this product. Wear additional eye protection such as a face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material.

**Skin Protection:** Prevent contact with this product. Wear gloves and protective clothing depending on condition of use. Protective gloves: Impervious. Chemical-resistant.

**Respiratory Protection:** Respiratory protection must be worn when handling this product. If exposure limits are exceeded, wear: NIOSH-Approved respirator for dusts and mists. NIOSH-Approved self-contained breathing apparatus. DO NOT exceed limits established by the respirator manufacturer. All respiratory protection programs must comply with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements and must be followed whenever workplace conditions require a respirator's use.

**Other Protective Equipment:** Eye-wash station. Safety shower. Rubber apron. Rubber boots. Protective clothing. Full body suit.

**General Hygiene Conditions:** Wash with soap and water before meal times and at the end of each work shift.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** Crystalline powder or granules.

**Color:** White.

**Odor:** No odor.

**Odor Threshold:** N.D.

**pH:** 12.0 (1% Solution @ 25C)

**Freezing Point (deg. F):** N.A.

**Melting Point (deg. F):** 167

**Initial Boiling Point or Boiling Range:** N.D.

**Flash Point:** None.

**Flash Point Method:** N.A.

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**Evaporation Rate (nBuAc = 1):** N.A.  
**Flammability (solid, gas):** N.D.  
**Lower Explosion Limit:** N.D.  
**Upper Explosion Limit:** N.D.  
**Vapor Pressure (mm Hg):** N.A.  
**Vapor Density (air=1):** N.A.  
**Specific Gravity or Relative Density:** N.D.  
**Solubility in Water:** Appreciable  
**Partition Coefficient (n-octanol/water):** N.D.  
**Autoignition Temperature:** Noncombustible  
**Decomposition Temperature:** N.D.  
**Viscosity:** N.D.  
**% Volatile (wt%):** N.D.  
**VOC (wt%):** 0  
**VOC (lbs/gal):** 0  
**Fire Point:** N.D.

## 10. STABILITY AND REACTIVITY

**Reactivity:** No data available.

**Chemical Stability:** Stable under normal conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization will not occur under normal conditions.

**Conditions to Avoid:** Avoid contact with moisture. Avoid excessive heat and open flames.

**Incompatible Materials:** Moisture. Acids. Magnesium. Aluminum. This material could be corrosive to aluminum surfaces because of high pH. Food sugars. Deadly carbon monoxide gas can form in enclosed or poorly ventilated areas or tanks when alkaline products contact food, beverage, or dairy products. Do not enter such areas until they have been well ventilated and carbon monoxide and oxygen levels have been determined to be within OSHA acceptable limits. If carbon monoxide and oxygen levels cannot be measured, wear NIOSH-approved, self-contained breathing apparatus.

**Hazardous Decomposition Products:** Thermal decomposition may release: Phosphorous oxides. Sodium oxides.

## 11. TOXICOLOGICAL INFORMATION

<u>Component</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Inhalation LC50</u>
No components found or no data available for product.			

**Routes of Exposure:** Eyes. Ingestion. Inhalation. Skin.

**Eye Contact:** May be corrosive to the eyes. Severe irritation and burns may result. May cause: permanent eye damage. blindness.

**Skin Contact:** May cause moderate to severe irritation. Contact may cause: pain. redness. swelling. blistering. skin damage.

**Skin Absorption:** No more than slightly toxic based on toxicity studies.

**Inhalation:** May cause severe irritation. May irritate: nose. throat. upper respiratory tract. May cause: coughing. chest pain. shortness of breath. May cause damage to the: lungs. respiratory tract.

**Ingestion:** May cause severe irritation. May cause burns to the: mouth. esophagus. May cause: nausea. vomiting. diarrhea. abdominal pain. chest pain. seizures. Aspiration into the lungs may occur during ingestion or vomiting, resulting in severe pulmonary injury.

**Medical Conditions Aggravated by Exposure to Product:** None known.

**Other:** None known.

**TRISODIUM PHOSPHATE CRYSTAL TECH**  
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**Cancer Information:**

This product does not contain 0.1% or more of the known or potential carcinogens listed in NTP, IARC, or OSHA.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicological Information:** 96-hr EC50 Daphnia magna: 126 mg/L; 96-hr EC50 Mosquitofish: 151 mg/L

**Chemical Fate Information:** No data available.

**13. DISPOSAL CONSIDERATIONS**

**Hazardous Waste Number:** N.A.

**Disposal Method:** Dispose of in accordance with all local, state and federal regulations. Dry material may be landfilled or recycled in accordance with local, state and federal regulations. Disposal methods identified are for the product as sold. For proper disposal of used material, an assessment must be completed to determine the proper and permissible waste management options permitted under applicable rules, regulations and/or laws governing your location. Since emptied containers retain product residue, follow label warnings even after container is emptied.

**14. TRANSPORT INFORMATION**

**DOT (Department of Transportation):**

**Identification Number:** UN3077

**Proper Shipping Name:** Environmentally Hazardous Substance, Solid, N.O.S. (Contains Sodium Phosphate, Tribasic)

**Hazard Class:** 9

**Packing Group:** III

**Label Required:** Class 9

**Reportable Quantity (RQ):** 5000# (Sodium phosphate, tribasic)

**Note:** This material is not DOT regulated in shipments of less than 5000#.

**15. REGULATORY INFORMATION**

**TSCA Inventory Status:** Trisodium phosphate dodecahydrate appears on the U.S. EPA TSCA Inventory under the cas# representing the anhydrous form of this material (7601-54-9 trisodium phosphate, crystalline).

**SARA Title III Section 311/312 Category Hazards:**

<u>Immediate (Acute)</u> Yes	<u>Delayed (Chronic)</u> No	<u>Fire Hazard</u> No	<u>Pressure Release</u> No			<u>Reactive</u> No	
<u>Regulated Components:</u> <u>Component</u>	<u>CAS</u> <u>Number</u>	<u>CERCLA</u> <u>RQ</u>	<u>SARA</u> <u>EHS</u>	<u>SARA</u> <u>313</u>	<u>U.S.</u> <u>HAP</u>	<u>WI</u> <u>HAP</u>	<u>Prop</u> <u>65</u>
Trisodium Phosphate Dodecahydrate	10101-89-0	Yes*	No	No	No	No	No

**\*Prop 65 - May Contain the Following Trace Components:**

No data available.

**Note:** \* Reportable as sodium phosphate, tribasic.

**16. OTHER INFORMATION**

**Hazard Rating System**

**Health:** 3

**Flammability:** 0

**Reactivity:** 0

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\* = Chronic Health Hazard

**NFPA Rating System**

**Health:** 3  
**Flammability:** 0  
**Reactivity:** 0  
**Special Hazard:** None

**MSDS Abbreviations**

**N.A. = Not Applicable**  
**N.D. = Not Determined**  
**HAP = Hazardous Air Pollutant**  
**VOC = Volatile Organic Compound**  
**C = Ceiling Limit**  
**N.E./Not Estab. = Not Established**

**MSDS Prepared by:** NAO

**Reason for Revision:** Changes made throughout the MSDS. New format.

**Revised:** 04-09-2014

**Replaces:** 07-27-2009

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**The data in this Material Safety Data Sheet relates to the specific material designated and does not relate to its use in combination with any other material or process. The data contained is believed to be correct. However, since conditions of use are outside our control it should not be taken as warranty or representation for which HYDRITE CHEMICAL CO. assumes legal responsibility. This information is provided solely for your consideration, investigation, and verification.**