



TriSodium Phosphate, Dodecahydrate

SAFETY DATA SHEET

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SDS#: 1826

Review/Revision Date: 05/15/17

SECTION 1 - General Information And Chemical Product Identification

Trade Name: **TriSodium Phosphate, Dodecahydrate**

CAS #: **10101-89-0**

Chemical Name: **Tribasic, Sodium Phosphate**

Product Code:
TSPCSJ

Application/Uses/ **Used in Cleaning compounds as a source of alkali, water treatment to precipitate hardness salts, corrosion control**

Restrictions

Distributor Information **LidoChem, Inc. 20 Village Court, Hazlet, NJ 07730, Phone: (732) 888 8000
Fax: (732) 264 2751 * email: info@lidochem.com**

Emergency phone #: **CHEMTREC - Day or Night - at 800 424 9300**

SECTION 2 - Hazard(s) Identification

Classification of the substance or mixture (GHS-US)

Skin corrosion (Category 1B), H314
Serious eye damage (Category 1), H318

Physical Hazards
None

Hazard Statement

H314: Causes severe skin burns and eye damage

OSHA Defined Hazards

This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910,1200.

HNOC - Hazards Not Otherwise Classified

GHS Precautionary Statements - Prevention, Response, Storage, Disposal

P260: Do not breathe dust/fume/gas/mist/vapours/spray
P264: Wash skin thoroughly after handling

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

P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P363: Wash contaminated clothing before reuse

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

P311: Call a POISON CENTER or doctor/physician

P405: Store locked up

P501: Dispose of contents/container in accordance with Federal, State and Local regulations at an approved disposal plant.



Signal Word

Danger

SECTION 3 Composition/information On Ingredients

Molecular Weight: **380.124**

Chemical FORMULA: **Na₃PO₄·12H₂O**

CAS#:	Common Name/Synonyms:	% by Wt.
10101-89-0	Tribasic, Sodium Phosphate	100%

SECTION 4 - First Aid Information

Description of first aid measures

General Advice:

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area. Immediately remove any clothing soiled by the product.

If Inhaled:

Remove victim from immediate source of exposure and assure that the victim is breathing. If breathing is difficult, administer oxygen, if available. If victim is not breathing, administer CPR (cardiopulmonary resuscitation). Seek medical attention.

In Case Of Skin Contact:

In case of contact, immediately wash with plenty of soap and water for at least 15 minutes. Seek medical attention. Remove contaminated clothing and shoes before reuse or discard if they cannot be thoroughly cleaned.

In Case Of Eye Contact:

Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. If present and easy to do, remove contact lenses. Seek immediate medical attention, preferably with an ophthalmologist. If the physician is not immediately available, eye irrigation should be continued for an additional 15 minutes. If it is necessary to transport the patient to a physician and the eye needs to be bandaged, use a dry sterile cloth pad and cover both eyes. DO NOT let victim rub eye(s). Do not attempt to neutralize with chemical agents.

If Swallowed:

If victim is conscious and alert, give 2-3 glasses of water to drink and do not induce vomiting. **Never give anything to eat or drink to someone who is unconscious, having convulsions, or unable to swallow.** Seek immediate medical attention. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. Vomiting may occur spontaneously. If vomiting occurs and the victim is conscious, give water to further dilute the chemical.

Most important symptoms and effects, both acute and delayed:

Acute Eye: May cause burns, irritation. Irritation is likely to be more severe if the skin is moist or wet.

Acute Inhalation: May cause coughing, chest pain, shortness of breath, upper respiratory tract irritation, serious damage to lung tissue and respiratory tract. **Acute Ingestion:** May cause irritation, corrosion, burns to mouth and esophagus, pulmonary complication.

Chronic Effects: This product does not contain any ingredients designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens.

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically. No additional information.

SECTION 5 - Fire And Explosion Data

Suitable Extinguishing Media:

Not combustible. Use media suitable to fight surrounding fire. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media:

None specified

Specific Hazards arising from the chemical:

Oxides of phosphorus, Sodium oxides

Special protective equipment and precautions for fire-fighters:

Fire fighters should wear NIOSH/MSHA approved self contained breathing apparatus.

Fire-fighting equipment/instructions

Dike area to prevent runoff and contamination of water sources. As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Evacuate nonessential personnel from the fire area. Evacuate residents who are downwind of fire.

Specific Methods

Standard fire fighting techniques in extinguishing fires involving this material.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

Do not touch or walk through spilled material. Keep Unauthorized personnel away. After wearing and using recommended protective equipment, stop source of spill if safe to do so and dike area to contain spill. See Section 8 for personal protective equipment.

Environmental Precautions:

Consult with environmental regulatory agencies for acceptable procedures of disposal. Prevent material from entering public sewer system or any waterways. Large spills should be handled according to a predetermined plan.

Methods and Materials for Containment and Clean Up:

Stop source of spill if safe to do so. Sweep up spilled solid material, being careful not to create dust. Use clean non-sparking tools and equipment. Return sweeping to stock or, if contaminated, place into a chemical waste container for disposal. Clean up residual material by washing area with water. Runoff from fire control or dilution water may cause pollution.

Section 7- Handling and Storage

Precautions for safe handling:

Caution: May cause eye and skin irritation. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. For industrial use only. Keep containers tightly closed. Avoid dust generation.

Conditions for safe storage:

Store in an area that is cool, dry, well-ventilated, away from food stuffs or animal feed. Store in tightly closed containers.

Incompatibilities:

Strong acids and magnesium. Solutions react with metals to form flammable hydrogen gas. May react violently with magnesium. This material, upon contact with certain food products or their residues which contain reducing sugars, may react to form deadly carbon monoxide.

Section 8 - Exposure Control and Personal Protection

Occupational Exposure Limits:

Chemical Identity:	CAS #:	Exposure Limit Values		SOURCE	OSHA/PPM
		TWA	STEL		PEL
Tribasic, Sodium Phosphate	10101-89-0	10mg/m3	5mg/m3	ACGIH Threshold Limit Values	N/A
				ACGIH Threshold Limit Values	
				ACGIH Threshold Limit Values	

Exposure Limits and Appropriate Engineering Controls:

Exposure limits represent regulated or recommended worker breathing zone concentrations measured by validated sampling and analytical methods, meeting OSHA requirements. The following limits (ACGIH, OSHA and other) apply to this material, where, if indicated, S=skin and C=ceiling limit: ACGH TLV/TWA PARTICULATES NOT OTHERWISE CLASSIFIED : 10 mg/cubic meter(INHALABLES)

Individual Protection Measures, (Personal Protective Equipment):

Eye Protection

Eye/face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material. Eye contact should be prevented through use of chemical safety glasses with side shields or splash proof goggles. Emergency eye wash must accessible to work area.

Skin Protection

Skin contact should be minimized through use of gloves and suitable long sleeved clothing (i.e., shirts and pants). Consideration must be given both to durability as well as permeation resistance.

Other Protection:

Minimize breathing dust. Avoid prolonged or repeated breathing of dust and contact with skin. Remove contaminated clothing; launder before reuse. Cleanse skin thoroughly after contact, before meals and end of work period.

Respiratory Protection

When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the latest OSHA standard (29 CFR 1910.134) and/or ANSI Z88.2 recommendations.

Ventilation Limits:

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hygienic Practices:

All food / smoking materials should be kept in a separate area away from the storage/use location. Eating, drinking and smoking should be prohibited in areas where there is a potential for significant exposure to this material. Before eating, drinking or smoking, hands and face should be thoroughly washed. Facilities storing or using this material should be equipped with an eyewash and safety shower.

Section 9 - Physical and Chemical Properties

Appearance And Odor: Odorless, white granular or crystal solid

pH: 11.3

Melting Point: 75 deg C (167°F)

Freezing Point: No data available

Boiling Point: No data available

Flash Point: Non Combustible

Evaporation Rate: No data available

Solubilities: ca.190.1 g/l at 20 °C (68 °F)

Specific Gravity: 1.62 @ 75°C (167°F)

Bulk Density: .93 g/ml

Other Information:

Flammable Limits: Not flammable

UEL: Not applicable

LEL: Not applicable

Vapor Pressure(mm/hg): Nonvolatile

Vapor Density(air=1): Nonvolatile

Autoignition Temp: No data available

Decomposition Temp: No data available

Reactivity In Water: No data available

Viscosity: No data available

Section 10 - Stability and Reactivity

Chemical Stability and Reactivity:

This material is stable under normal handling and storage conditions.

Possible Hazardous Reactions:

No data available

Conditions to Avoid:

Keep drums tightly sealed to avoid moisture pickup which will cause caking. Material is hygroscopic. Stable at ambient temperatures & atmospheric pressure.

Incompatible Materials:

Strong acids and magnesium. Solutions react with metals to form flammable hydrogen gas. May react violently with magnesium. This material, upon contact with certain food products or their residues which contain reducing sugars, may react to form deadly carbon monoxide.

Hazardous Decomposition Products:

Decomposition products may be hazardous. These may include phosphorus oxides and sodium oxide. In aqueous solution, may react with certain metals to form flammable hydrogen gas. Decomposition Temperature Range: 77°C (171°F)

Section 11- Toxicological Information

Information On The Likely Routes Of Exposure: Inhalation, Ingestion and Dermal.

Symptoms Related To The Physical, Chemical And Toxicological Effects:

Inhalation Effects:

No test data found for product.

Skin Effects:

Acute: skin irritation, rabbit. Corrosive - 24 hour covered exposure, moist skin. Nonirritating - 4 hour uncovered exposure, dry skin.

Dermal Toxicity:

No test data found for product.

Eye Effects:

Acute: eye irritation, rabbit. Corrosive. After 0.1 ml of Trisodium Phosphate was placed in the eye of a rabbit, a corrosive effect was seen within 24 hours. After 14 days, eye regained normal appearance. (Skin-Rabbit) > 7940 mg/kg

Ingestion Effects:

LD50 - lethal dose 50% of test species, 7400 mg/kg, rat.

Sensitization:

Not a sensitizer.

Carcinogenicity/Mutagenicity:

This product does not contain any substances that are considered by OSHA, NTP, IARC or ACGIH to be "probable" or "suspected" human carcinogens. No information found on Mutagenicity.

Reproductive Effects:

No data found for product.

Neurotoxicity:

No data found for product.

Target Organs:

No data found for product.

Additional Toxicological Information:

No additional information found for this product.

Section 12- Ecological Information

Ecotoxicity: No data found for product.

Degradability: 126 mg/L Water flea/Daphia Magna - 96 hrs, EC50

Bioaccumulative potential: No data found for product.

Mobility in the Soil: No data found for product.

Additional Adverse effect on environment:

No specific biodegradation test data located. While the alkalinity of this material is readily reduced in natural waters, the resulting phosphate may persist indefinitely or incorporate into biological systems. Product can be dangerous to aquatic life in high concentrations as it will increase the pH of the aquatic environment.

SECTION 13 - Disposal Considerations

Disposal Instructions and Regulations:

Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

Hazardous Waste Code: EPA waste code for corrosivity (D002) may be required. Wastes should be tested to determine applicability.

Container Disposal Information:

Please be advised that state and local requirements for container disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of container.

Section 14 - Transport Information

US DOT, IATA, IMO, ADR:

Proper Shipping Name: Tribasic, Sodium Phosphate

D. O. T. Hazard Class: N/Ap

UN #: 3077 *

Label Requirement: NONE

RQ: 5,000 lbs. (2,270 kgs)

Placard: None

CAS: 10101-89-0

Packing Group: N/Ap

ERG Book Information: 171

Environment Hazards: No

Marine Pollutant: No

Special Precautions: No

IATA: Not regulated as dangerous goods.

Section 15 - Regulatory Information

US Federal - OSHA Status:

This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910,1200.

TSCA Status:

Not Listed/Non-reportable

U.S. SARA Reporting Requirements:

SARA Title III Hazard Classes Section 302 - EXTREMELY HAZARDOUS SUBSTANCES:

This product does NOT contain ingredients listed in Appendix A and B as Extremely Hazardous substances.

SARA Title III Hazard Classes Sections 311/312:

Immediate (acute) health hazard Causes severe burns

SARA Section 313 Toxic Chemicals:

This product contains the following toxic chemical subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right to Know Act:

CAS# Chemical Name:

This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels.

SARA Superfund Section 110:

This product does NOT contain ingredients listed as hazardous substances on the Priority List of CERCLA Hazardous substances.

CERCLA, 40 CFR 117, 302:

This product contains ingredients specified in the List of Extremely Hazardous Substances. These ingredients are listed below.

CERCLA listed substances are:

Trisodium Phosphate Dodecahydrate 5000LB final RQ

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Other Federal Reporting Requirements:

CAA: This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act
CWA: Listed on the CWA, RQ 5000
RCRA: Not considered a hazardous waste.

State Reporting Requirements:

State Right to Know Laws:

CAS#	State RTK	Chemical Name
	PA, MA	Sodium Phosphate, Tribasic Phosphoric Acid Trisodium salt, dodecahydrate

CALIFORNIA PROPOSITION 65:

This product does NOT contain any chemicals which require warning under California Proposition 65.

Michigan Critical Materials:

This product does NOT contain ingredients listed on the Michigan Critical Materials Register.

Global Lists/International Inventories:

Canada CEPA: All intentional ingredients are NOT listed on the DSL.
Canada WHMIS: Not controlled.

SECTION 16 - Other Information

* 5-28-15 For packagings equal to or greater than 5,000 pounds this product is REGULATED as a U.S. DOT hazardous material as the following: RQ, UN 3077, Environmentally hazardous substances, solid, n.o.s. (sodium phosphate, tribasic), 9, PG III, Label CLASS 9.

Medical Conditions Possibly Aggravated by Exposure:

Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

Notes to Physician:

All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Treat symptomatically. No specific antidote available.

Ingestion of large quantities of phosphate salts (over 1.0 grams for an adult) may cause an osmotic catharsis resulting in diarrhea and probable abdominal cramps. Larger doses such as 4-8 grams will almost certainly cause these effects in everyone. In healthy individuals most of the ingested salt will be excreted in the feces with the diarrhea and, thus, not cause any systemic toxicity. Doses greater than 10 grams hypothetically may cause systemic toxicity. Treatment should take into consideration both anionic and cation portion of the molecule. The following treatments should be considered for the specific group(s) of phosphate salts found in this product.

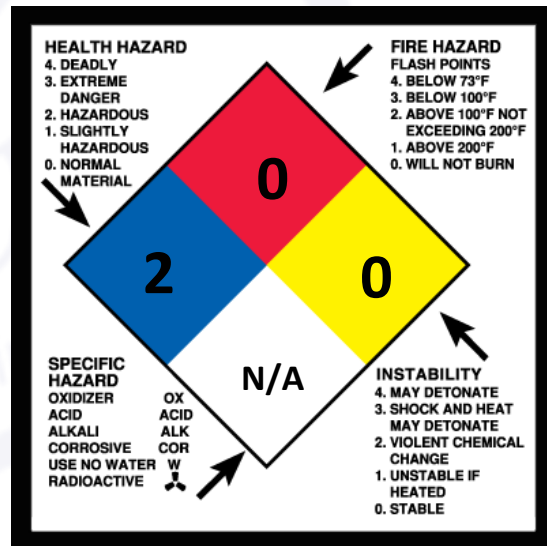
All phosphate salts, except calcium salts, have a hypothetical risk of hypocalcemia, so calcium levels should be monitored.

Ammonium salts have a hypothetical risk of ammonia toxicity. In addition to calcium levels, ammonia and phosphate levels should be monitored.

Potassium salts have a hypothetical risk of hyperkalemia which can cause cardiac arrhythmia. In addition to calcium levels, potassium and phosphate levels should be monitored. Also consider continuous EKG monitoring to detect hyperkalemia.

Sodium salts have a hypothetical risk of hypernatremia. In addition to calcium levels, sodium and phosphate levels should be monitored.

5-28-15 SDS reviewed - updated to GHS requirements. This replaces all previous MSDS's - 5-15-17 - reviewed no changes.



Date of last revision:

5-15-2017

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NOTICE: OSHA STANDARD 29 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of a Hazard Communication Program including training, labeling, Material Safety Data Sheets, and access to written records. We request that you, and it is your legal duty, make all information in this Material Safety Data Sheet available to your employees.

Key Legend Information:

N/Ap:	Not Applicable	ND:	Not Determined
N/R:	Not Rated	NDA:	No Data Available
ACGI	American Conference of Govr'ntal Industrial Hygienists	TLV:	Threshold Limit Value
OSHA:	Occupational Safety and Health Administration	TWA:	Time Weighted Average
PEL:	Permissible Exposure Limit	NTP:	National Toxicology Program
STEL:	Short Term Exposure Limit	TSCA:	Toxic Substance Control Act
IARC:	International Agency for Research on Cancer	CERCLA:	Comprehensive Response, Compensation and Liability Act
SARA Title III:	Superfund Amendments and Reauthorization Act	CWA:	Clean Water Act
CAA:	Clean Air Act		
RCRA:	Resource Conservation Recovery Act		
IATA:	International Air Transport Association Shipping Info.	IMO:	International Maritime Organization Shipping Info.
DSL:	Domestic Substance List (Canada)	WHMIS:	Workplace Hazardous Materials Information System

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