MATERIAL SAFETY DATA SHEET
Sodium Tripolyphosphate

Section 1 – Chemical Product and Company Identification

Product Name : Sodium Tripolyphosphate

Chemical Family : Phosphate Salts

Chemical Formula : $Na_5P_3O_{10}$

Synonyms / Common Names : STP; STPP

Product Use : Food Ingredient, Cleaning Compound

Company Name	Cosmo Chemistry
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Telephone number	+91 7984584838
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Section 2 – Composition, Information on Ingredients

Component	CAS No.
Sodium Tripolyphosphate	7758-29-4

Section 3 – Hazards Identification

EMERGENCY OVERVIEW

Appearance and Odor: White powder or granules with no odor

WARNING STATEMENTS

CAUTION!

MAY CAUSE RESPIRATORY TRACT IRRITATION

POTENTIAL HEALTH EFFECTS

Likely Routes of Exposure : Skin contact and inhalation

EYE CONTACT: No more than slightly irritating based on toxicity studies. The dry powder may cause foreign body irritation in some individuals.

SKIN CONTACT: No more than slightly toxic or slightly irritating based on toxicity studies. Prolonged contact with the dry powder may cause drying or chapping of the skin.

INHALATION: This product may cause coughing, chest tightness, runny nose, chest pain, and burning throat.

INGESTION: No more than slightly toxic if swallowed based on toxicity tests. No significant adverse health effects are expected to develop if only small amounts (less than a mouthful) are swallowed. Swallowing large quantities may cause gastrointestinal tract irritation, nausea, vomiting, and diarrhea.

Refer to Section 11 for toxicological information.

Section 4 – First Aid Measures

IF IN EYES OR ON SKIN, immediate first aid is not likely to be required. However, this material can be removed with water. Remove material from eyes, skin and clothing. Wash heavily contaminated clothing before reuse.

IF INHALED, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

IF SWALLOWED, immediate first aid is not likely to be required. A physician or Poison Control Center can be contacted for advice.

Section 5 – Fire Fighting Measures

FLASH POINT: Not combustible
HAZARDOUS PRODUCTS OF COMBUSTION: Not applicable
EXTINGUISHING MEDIA: Not applicable
UNUSUAL FIRE AND EXPLOSION HAZARDS: None known

Section 6 – Accidental Release Measures

In case of spill, sweep, scoop or vacuum and remove. If possible, complete cleanup on a dry basis. Flush residual spill area with water.

Refer to Section 13 for disposal information and Sections 14 and 15 for reportable quantity information.

Section 7 – Handling and Storage

HANDLING
Avoid breathing dust.
Keep container closed.
Use only with adequate ventilation.
Emptied container retains product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

STORAGE: Store in a cool, dry place to maintain product performance.

Section 8 – Exposure Controls, Personal Protection

EYE PROTECTION: This product does not cause significant eye irritation or eye toxicity requiring special protection. Use good industrial practice to avoid eye contact.

SKIN PROTECTION: Although this product does not present a significant skin concern, minimize skin contamination by following good industrial practice. Wearing protective gloves is recommended. Wash hands and contaminated skin thoroughly after handling.

RESPIRATORY PROTECTION: Avoid breathing dust. Use NIOSH/MSHA approved respiratory protection equipment when airborne exposure limits are exceeded (see below). Consult the respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH/MSHA or the manufacturer. Respiratory protection programs must comply with 29 C.F.R. 1910.134.

VENTILATION: Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits (see below). The use of local mechanical exhaust ventilation is preferred at sources of air contamination such as open process equipment.

AIRBORNE EXPOSURE LIMITS: OSHA and ACGIH have not established specific exposure limits for this material. However, OSHA and ACGIH have established limits for particulates not otherwise classified (PNOC) which are the least stringent exposure limits applicable to dusts.

OSHA PEL	ACGIH TLV
15 mg/m³ (total dust) 8-hr TWA	10 mg/m³ (inhalable) 8-hr TWA
5 mg/m³ (respirable) 8-hr TWA	3 mg/m³ (respirable) 8-hr TWA

Sodium tripolyphosphate anhydrous contains tetrasodium pyrophosphate which has the following airborne exposure guidelines.

OSHA PEL	ACGIH TLV
5 mg/m³ 8-hr TWA	5 mg/m³ 8-hr TWA

Section 9 – Physical and Chemical Properties

Parameter	Value
Chemical Formula	Na5P3O10
Appearance	White powder or granules
Odor	None
Melting Point @ 760 mm Hg	Begins to melt incongruently @ 552 °C; completely melted @ 622 °C

NOTE: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

Section 10 – Stability and Reactivity

STABILITY: Product is stable under normal conditions of storage and handling
MATERIALS TO AVOID: None known
HAZARDOUS DECOMPOSITION PRODUCTS: None known
HAZARDOUS POLYMERIZATION: Will not occur

Section 11 – Toxicological Information

Data from single-dose (acute) animal studies with this material are given below:

Test	Result
Oral – rat	LD50 – 5,400 mg/kg; practically non-toxic
Dermal – rabbit	LD50 – >7,940 mg/kg; practically non-toxic
Eye Irritation – rabbit	3.3/110.0; slightly irritating
Skin Irritation – rabbit	0.0/8.0 (24-hr exp.); not irritating
Inhalation	LC50 >0.39 mg/L (rat, 4 hr) (maximum attainable concentration)

Rats fed Sodium Tripolyphosphate Anhydrous in their diet for two years exhibited decreased growth, increased kidney/body weight ratios, and kidney changes. No birth defects were noted in rabbits given Sodium Tripolyphosphate Anhydrous orally during pregnancy. No effects were seen on the ability of male and female rats to reproduce when fed Sodium Tripolyphosphate Anhydrous for 3 successive generations. Sodium Tripolyphosphate Anhydrous has generally produced no genetic changes in a variety of standard tests using animals and animal or bacterial cells. Genetic changes were reported in a standard test using yeast cells.

The following component has been defined as a hazardous chemical under the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Tetrasodium pyrophosphate (a component of sodium tripolyphosphate anhydrous)

The dry powder may cause foreign body irritation in some individuals. Excessive inhalation of dust may be annoying and mechanically impede respiration. The high alkalinity of tetrasodium

pyrophosphate (TSPP) may cause upper respiratory tract irritation. Prolonged contact with the dry powder may cause drying or chapping of the skin.

Acute studies indicate that this material is slightly toxic orally (rat) and practically nontoxic after skin application (rabbit). It is slightly irritating to rabbit eyes and nonirritating to rabbit skin. Rats fed tetrasodium pyrophosphate in their diet for four months showed a reduced weight gain, urinary changes, increased organ-to-body weight ratios, and slight kidney damage. No birth defects were reported in rabbits, hamsters, mice or rats given this material orally during pregnancy. Tetrasodium pyrophosphate produced no genetic changes in standard tests using bacterial and yeast cells.

Section 12 – Ecological Information

The following data have been classified using the criteria adopted by the European Economic Community (EEC) for aquatic organism toxicity.

Invertebrate: 48-hr EC50 Daphnia magna: >1000 mg/L; Practically Nontoxic
96-hr LC50 >100 mg/L, non-toxic (Rainbow trout, Inland silversides and mysid shrimp).
48-hr EC50 >100 mg/L, non-toxic (Daphnia magna).

Biodegradation studies have not been conducted with this product since when dissolved/hydrolyzed in water it yields completely mineralized materials.

Section 13 – Disposal Considerations

This material when discarded is not a hazardous waste as that term is defined by the Resource Conservation and Recovery Act (RCRA), 40 CFR 261. Dry material may be landfilled or recycled in accordance with local, state and federal regulations. Consult your attorney or appropriate regulatory officials for information on such disposal.

Section 14 – Transport Information

Not regulated for transportation

Section 15 – Regulatory Information

TSCA Inventory: Listed
DSL Inventory: Listed
CERCLA Reportable Quantity: Not applicable

Section 16 – Additional Information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the supplier be liable for any claim, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the supplier has been advised of the possibility of such damages.

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