



Material Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: TETRASODIUM PYROPHOSPHATE ANHYDROUS

MSDS Number: P007722885 Date: 10/1/2000

Chemical Family: phosphate salts

Chemical Name: diphosphoric acid, tetrasodium salt

Synonyms: TSPP; sodium pyrophosphate.

Prayon Inc. 1610 Marvin Griffin Road Augusta, Georgia 30906

FOR CHEMICAL EMERGENCY, SPILL LEAK, FIRE, EXPOSURE, OR ACCIDENT

Call CHEMTREC - Day or Night - 1-800-424-9300 Toll free in the continental U.S., Hawaii, Puerto Rico, Canada, Alaska, or Virgin Islands. For calls originating elsewhere: 703-527-3887 (collect calls accepted)

For additional non-emergency information, call: 706-798-4346

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS No.</u>	<u>% by weight</u>
tetrasodium pyrophosphate	7722-88-5	95+

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 based on its physical properties.

INGESTION: No more than slightly toxic if swallowed based on toxicity studies. No significant adverse health effects are expected to develop if only small amounts (less than a mouthful) are swallowed.

Refer to Section 11 for toxicological information.

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. Wash heavily contaminated clothing before reuse.

IF INHALED, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Remove material from eyes, skin and clothing.

IF SWALLOWED, immediate first aid is not likely to be required. A physician or Poison Control Center can be contacted for advice. Wash heavily contaminated clothing before reuse.

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

6. ACCIDENTAL RELEASE MEASURES

In case of spill, sweep, scoop or vacuum and remove. If possible, complete cleanup on a dry basis. After all practical dry cleanup has been done, residual contamination can be flushed with plenty of water.

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

7. HANDLING AND STORAGE

HANDLING:

Avoid breathing dust.
Keep container closed.
Use only with adequate ventilation.

Empty container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

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

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 is excessive. 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:

<u>Product/Component</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
tetrasodium pyrophosphate	not established	5 mg/m ³ 8-hr TWA

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Formula: Na₄P₂O₇

Appearance: white power or granules

Odor: none

pH: 10.3 (as a 1% solution)

Melting Point: begins to melt incongruently @ 622 degrees C, completely melted at 985 degrees C

Bulk Density: (lbs./cu. ft.): 72-75 powder (packed); 69-73 granular
(solvay cup)

Solubility in Water: (g/100 g H₂O): 3.1 @ 0 degrees C

6.4 @ 25 degrees C

17.6 @ 50 degrees C

49.3 @ 75 degrees C

47.1 @ 71 degrees 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.

10. STABILITY AND REACTIVITY

STABILITY: Product is stable under normal conditions of storage and handling.

MATERIALS TO AVOID: none known

HAZARDOUS DECOMPOSITION PRODUCTS: none

HAZARDOUS POLYMERIZATION: will not occur

11. TOXICOLOGICAL INFORMATION

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

The dry powder may cause foreign body irritation in some individuals. Prolonged contact with the dry powder may cause drying or chapping of the skin. Excessive inhalation of dust may be annoying and can mechanically impede respiration. Because of its high alkalinity, this material may cause upper respiratory tract irritation.

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

Oral - rat LD50: 3,770 mg/kg; slightly toxic
Dermal - rabbit LD50: > 7,940 mg/kg; practically nontoxic
Eye Irritation - rabbit: 8.2/110.0; slightly irritating
Skin Irritation - rabbit (24-hr exp.): 0.0/8.0; non-irritating

Rats fed this material 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 during pregnancy. This material produced no genetic changes in standard tests using bacterial and yeast cells.

12. ECOLOGICAL INFORMATION

The following data have been classified using the criteria adopted by the European Economic Community (EEC) for aquatic organism toxicity. A legend summarizing the classification scheme appears below.

Invertebrate: 48-hr EC50 *Daphnia magna*: 391 mg/L; Practically Nontoxic
Fish: 96-hr LC50 Mosquito fish: 1380 mg/L; Practically Nontoxic
48-hr LC50 High-eyes Medaka: 700 mg/L; Practically Nontoxic

No algal toxicity data was available for this material.

Legend for Aquatic Organism Toxicity (Journal of the European Communities, Annex VII A, Section 5.2.1)

Values	Classifications
LC50 or EC50 < or = 1.0 mg/L	Very Toxic
LC50 or EC50 > 1.0 mg/L and < or = 10 mg/L	Toxic
LC50 or EC50 > 10 mg/L and < or = 100 mg/L	Harmful
LC50 or EC50 > 100 mg/L	Practically Nontoxic

No biodegradation data was available for this material, since when dissolved/hydrolyzed in water it yields completely mineralized materials.

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.

14. TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

This product is not hazardous under the applicable DOT, ICAO/IATA, or IMDG regulations.

15. REGULATORY INFORMATION

TSCA Inventory:

Listed as diphosphoric acid, tetrasodium salt

SARA Hazard Notification

Hazard Categories Under Title III Rules (40 CFR 370): immediate

Section 302 Extremely Hazardous Substances: not applicable

Section 313 Toxic Chemical(s): not applicable

CERCLA Reportable Quantity: not applicable

Refer to Section 11 for OSHA Hazardous Chemical(s) and Section 13 for RCRA classification.

16. OTHER INFORMATION

This material is certified to ANSI/NSF Standard 60 by NSF® International for use in potable water systems.

The information contained in this MSDS was reviewed on 6/19/2003 and no revisions were made.

Although the information and recommendations set forth herein (hereinafter 'Information') are presented in good faith and believed to be correct as of the date hereof, Prayon Inc. makes no representations as to the completeness or accuracy thereof.

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