



Material Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: TETRAPOTASSIUM PYROPHOSPHATE ANHYDROUS

MSDS Number:P007320345 Date: 10/01/2000

Chemical Name: diphosphoric acid, tetrapotassium salt

Synonyms: TKPP; potassium 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> |
|--|----------------|--------------------|
| tetrapotassium pyrophosphate anhydrous | 7320-34-5 | 97+ |

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Appearance and Odor: white granules with no odor

WARNING STATEMENTS

NO SIGNIFICANT HAZARDS ASSOCIATED WITH THIS MATERIAL

POTENTIAL HEALTH EFFECTS

Likely Routes of Exposure: skin contact and inhalation

EYE CONTACT: No more than slightly irritating based on toxicity studies. The dry material 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 material may cause drying or chapping of the skin.

INHALATION: Inhalation of the dust may cause coughing and sneezing.

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, immediate first aid is not likely to be required. However, if symptoms occur, remove to fresh air. 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

6. ACCIDENTAL RELEASE MEASURES

In case of spill, sweep, scoop or vacuum and remove. Flush residual spill area with water.

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

7. HANDLING AND STORAGE

HANDLING: HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICES. THESE PRACTICES INCLUDE AVOIDING UNNECESSARY EXPOSURE AND REMOVAL OF MATERIAL FROM EYES, SKIN, AND CLOTHING.

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:

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

15 mg/m³ (total dust) 8-hr TWA

5 mg/m³ (respirable) 8-hr TWA

ACGIH TLV

10 mg/m³ (inhalable) 8-hr TWA

3 mg/m³ (respirable) 8-hr TWA

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Formula: K₄P₂O₇

Appearance: white granules

Odor: none

pH: 10.35 - 10.40 (as a 1% solution @ 25 degrees C)

Melting Point: begins to melt incongruently at 641.5 degrees C; completely melted @ 1,109 degrees C

Bulk Density: 72 lbs./cu. ft.

Solubility in Water: g/100 g H₂O): 188 @ 25 degrees C
205 @ 50 degrees C
245 @ 75 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 known

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 material may cause foreign body irritation in some individuals. Prolonged contact with the dry material may cause drying or chapping of the skin. Excessive inhalation of dust may be annoying and can mechanically impede respiration.

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

Oral - rat LD₅₀: 2,980 mg/kg; slightly toxic

Dermal - rabbit LD₅₀: > 7,940 mg/kg; practically nontoxic

Eye Irritation - rabbit: 11.1/110.0; slightly irritating

Skin Irritation - rabbit: 0.5/8.0 (24-hr. exposure); practically nonirritating

Following repeated exposure (13-weeks) to this product in their food, kidney damage with changes in body weight, food consumption, clinical parameters and organ weights were reported at high-dose levels in rats.

12. ECOLOGICAL INFORMATION

Prayon has not conducted environmental toxicity studies with this product. Available data for similar materials suggest that this material would be practically nontoxic to invertebrates and fish (LC₅₀ or EC₅₀ > 100 mg/L).

Prayon has not conducted biodegradation studies with this product 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, tetrapotassium salt

SARA Hazard Notification

Hazard Categories Under Title III Rules (40 CFR 370): not applicable

Section 302 Extremely Hazardous Substances: not applicable

Section 313 Toxic Chemical(s): not listed

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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