



MATERIAL SAFETY DATA SHEET

Tetrasodium Pyrophosphate

1. Contact Information:

Company: Aurora Industry Co.,Ltd.
Address:Room 7033, No.9-1, Haifu Road, Dalian Free Trade Zone,
China
Tel:0411-82288674

2 - Composition, Information on Ingredients

CAS No.: 7722-88-5;Chemical Name: Tetrasodium Pyrophosphate
;Pencent:95-100%;

3 - Hazards Identification

A. EMERGENCY OVERVIEW:

Physical Appearance and Odor:

white crystalline or powder solid, odorless.

Warning Statements:

WARNING!! CAUSES SKIN AND EYE IRRITATION. MAY CAUSE RESPIRATORY TRACT IRRITATION.

B. POTENTIAL HEALTH EFFECTS:

Acute Eye:

Irritant. Can cause redness, irritation, tissue destruction, on prolonged contact.

Acute Skin:

Low acute dermal toxicity. Slightly irritating. May cause redness, irritation.

Acute Inhalation:

Low acute inhalation toxicity. Dusts may cause upper respiratory tract irritation.

Acute Ingestion:

Low acute oral toxicity. May cause nausea, vomiting, diarrhea.

Chronic Effects:

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

4 - First Aid Measures

FIRST AID MEASURES FOR ACCIDENTAL:

Eye Exposure:



Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek medical attention if irritation develops or persists or if visual changes occur.

Skin Exposure:

In case of contact, immediately wash with plenty of soap and water for at least 5 minutes. Seek medical attention if irritation develops or persists. Remove contaminated clothing and shoes. Clean contaminated clothing and shoes before re-use.

Inhalation:

If respiratory irritation or distress occurs remove victim to fresh air. Seek medical attention if respiratory irritation or distress continues.

Ingestion:

If victim is conscious and alert, give 2-3 glasses of water to drink and induce vomiting by touching back of throat with a finger. Do not induce vomiting or give anything by mouth to an unconscious person. Seek immediate medical attention. Do not leave victim unattended. Vomiting may occur spontaneously. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. If vomiting occurs and the victim is conscious, give water to further dilute the chemical.

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.

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 - Fire Fighting Measures

FIRE HAZARD DATA:

Flash Point:

Not Applicable

Extinguishing Media:

Not combustible. Use extinguishing method suitable for surrounding fire.



Special Fire Fighting Procedures:

Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

Unusual Fire and Explosion Hazards:

Not combustible. Like all organic and most dry chemicals, as a powder or dust, this product (when mixed with air in critical proportions and in the presence of an ignition source) may present an explosion hazard.

Hazardous Decomposition Materials (Under Fire Conditions):

oxides of phosphorus

6 - Accidental Release Measures

Evacuation Procedures and Safety:

Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

Containment of Spill:

Dike or retain dilution water or water from firefighting for later disposal. Follow procedure described below under Cleanup and Disposal of Spill.

Cleanup and Disposal of Spill:

Sweep or vacuum up and place in an appropriate closed container (see Section 7: Handling and Storage). Avoid creation of dusty conditions. Clean up residual material by washing area with water and detergent. Decontaminate tools and equipment following cleanup.

Environmental and Regulatory Reporting:

Do not flush to drain. Runoff from fire control or dilution water may cause pollution. Prevent material from entering public sewer system or any waterways. Large spills should be handled according to a predetermined plan. For assistance in developing a plan contact the Technical Service Department using the Product Information phone number in Section 1.

7 - Handling and Storage

Minimum/Maximum Storage Temperatures: Not Available

Handling: Avoid breathing dusts. Avoid direct or prolonged contact with skin and eyes.

Storage: This product is a food ingredient. Store in tightly closed containers. Store in an area that is cool, dry, away from ignition sources, away from incompatible materials (see Section 10. Stability and Reactivity), isolated from all toxic and harmful substances, This product is hygroscopic and tends to cake on storage.

8 - Exposure Controls, Personal Protection

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application.

While developing safe handling procedures, do not overlook the need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance with Section 13:

Disposal Considerations.

Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

Exposure Guidelines: Exposure limits represent regulated or recommended worker breathing zone concentrations measured by validated sampling and analytical methods, meeting the regulatory requirements. The following limits apply to this material, where, if indicated, S=skin and C=ceiling limit:



Engineering Controls: Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures: general area dilution/exhaust ventilation.

Respiratory Protection: When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.

Under normal conditions, in the absence of other airborne contaminants, the following devices should provide protection from this material up to the conditions specified by the appropriate OSHA, WHMIS or ANSI standard(s): dust/mist filtering respirator.

Eye/Face Protection:

Eye and 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. It is generally regarded as good practice to wear a minimum of safety glasses with side shields when working in industrial environments.

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.

Work Practice Controls: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material:

- (1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
- (2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
- (3) Wash exposed skin promptly to remove accidental splashes or contact with this material.

9 - Physical and Chemical Properties

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product Information phone number in Section 1 for its exact specifications.

Physical Appearance: white crystalline or powder solid.

Odor: odorless.

pH: 3.8 to 4.5 at 1 wt/wt%.

Specific Gravity: Not Available

Density: 0.61 g/ml at 25 C (77 F).

Water Solubility: soluble

Melting Point Range: > 900 C (1652 F)

Boiling Point Range: Not Available

Vapor Pressure: Not Available

Vapor Density: Not Available

Molecular Weight: 222.15

10 - Stability and Reactivity

Chemical Stability: This material is stable under normal handling and storage conditions described in Section 7.

Conditions To Be Avoided: dusting conditions heat open flame spark static electricity



Materials/Chemicals To Be Avoided: strong bases strong oxidizing agents

Decomposition Temperature Range: 220 C (428 F)

The Following Hazardous Decomposition Products Might Be Expected:

Decomposition Type: thermal oxides of phosphorus

Hazardous Polymerization Will Not Occur.

Avoid The Following To Inhibit Hazardous Polymerization:

not applicable

11 - Toxicological Information

Acute Eye Irritation:

Toxicological Information and Interpretation: eye - eye irritation, rabbit. Severely irritating. Unwashed. Mildly irritating. Washed.

Acute Skin Irritation:

Toxicological Information and Interpretation: skin - skin irritation, rabbit. Moderately irritating. (At 24 hours.).

Acute Dermal Toxicity:

Toxicological Information and Interpretation: LD50 - lethal dose 50% of test species, > 300 mg/kg, rabbit.

LD50 - lethal dose 50% of test species, > 7940 mg/kg, rabbit.

Acute Respiratory Irritation: No test data found for product.

Acute Inhalation Toxicity: No test data found for product.

Acute Oral Toxicity: Toxicological Information and Interpretation:

LD50 - lethal dose 50% of test species, 2650 mg/kg, mouse.

Chronic Toxicity: This product does not contain any substances that are considered by OSHA, NTP, IARC or ACGIH to be "probable" or "suspected" human carcinogens.

No additional test data found for product.

12 - Ecological Information

Ecotoxicological Information: No data found for product.

Chemical Fate Information: No data found for product.

13 - Disposal Considerations

Waste Disposal Method:

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.

EPA Hazardous Waste – NO

14 - Transport Information

Transportation Status: IMPORTANT! Statements below provide additional data on listed DOT classification.

There are IMO IMDG sea transport and ocean transport.



Aurora Industry Co.,Ltd.

Website: www.a-uco.com Tel.: 0086-411-82288674

The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.

US Department of Transportation

Shipping Name: NOT REGULATED

15 - Regulatory Information

SARA Title III Hazard Classes:

Fire Hazard - NO

Reactive Hazard - NO

Release of Pressure - NO

Acute Health Hazard - YES

Chronic Health Hazard - NO

OTHER FEDERAL REGULATIONS:

FDA Status:

This product meets the compositional requirements of:

21 CFR 182.1087 Tetrasodium Pyrophosphate

STATE REGULATIONS: This product does not contain any components that are regulated under California Proposition 65.