Material Name: Tetrasodium Pyrophosphate, Anhydrous

* * * Section 1 - Identification * * *

Part Number: Technical Grade Chemical Name: Tetrasodium Pyrophosphate

Product Use: For Commercial Use, Not To Be Used As A Pesticide

Synonyms: Anhydrous tetrasodium pyrophosphate; Diphosphoric acid, tetrasodium salt; Pyrophosphoric acid, tetrasodium salt; Sodium pyrophosphate; Sodium diphosphate; Tetrasodium diphosphate; and TSPP.

RESTRICTIONS on USE

NOT TO BE USED AS A PESTICIDE. THIS PRODUCT IS NOT TO BE USED IN VIOLATION OF ANY PATENTS. LEVEL 7 CHEMICAL DISCLAIMS ANY AND ALL WARRANTIES, EITHER EXPRESSED OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR APPLICATION. IN NO EVENT SHALL LEVEL 7 CHEMICAL OR ITS SUPPLIERS BE LIABLE FOR ANY DAMAGES WHATSOEVER INCLUDING DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL, LOSS OF BUSINESS PROFITS OR SPECIAL DAMAGES, EVEN IF LEVEL 7 CHEMICAL OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. SOME STATES DO NOT ALLOW THE EXCLUSION OF LIMITATION OF LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES SO THE FOREGOING LIMITATION MAY NOT APPLY.

Manufacturer: Quimir, S.A. DE C.V. Supplier Information Level 7 Chemical 255 Sturgis Rd Conway, AR 72034

Phone: (855) 927-1777

Emergency # (800) 424-9300

NOTE: Emergency telephone numbers are to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to customer service.

* * * Section 2 – Hazard(s) Identification * * *

GHS HAZARDS

Hazard Categories

Category 4

Category 1

Acute toxicity, oral

Hazard Classes

Serious eye damage

Signal Word: Danger



Pictograms: Hazard Statements

PHYSICAL HAZARDS:

HEALTH HAZARDS:

None

H302: Harmful if swallowed H318: Causes serious eye damage

ENVIRONMENTAL HAZARDS:

None

Material Name: Tetrasodium Pyrophosphate, Anhydrous
PRECAUTIONARY STATEMENTS:P102: Keep out of reach of children

Safety Data Sheet Material Name: Tetrasodium Pyrophosphate, Anhydrous

	 P202: Do not handle until all safety precautions have been read and understood P264: Wash thoroughly after handling. P270: Do not eat, drink or smoke when using this product. P280: Wear eye protection/face protection.
RESPONSE STATEMENTS:	P301+P312+P330: IF SWALLOWED: Call a POISON CENTER /doctor if you feel unwell. Rinse mouth. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. P310: Immediately call a POISON CENTER/doctor.
STORAGE STATEMENTS:	None
DISPOSAL STATEMENTS:	P501: Dispose of content and/or container in accordance with local, regional, national or international regulations
Hazards not otherwise classified (HNOC):	No data available

* * * Section 3 - Composition / Information on Ingredients * * *				
CAS #	Component	Percent		
7722-88-5	Tetrasodium Pyrophosphate	95-100		

Synonyms: Anhydrous tetrasodium pyrophosphate; Diphosphoric acid, tetrasodium salt; Pyrophosphoric acid, tetrasodium salt; Sodium pyrophosphate; Sodium diphosphate; Tetrasodium diphosphate; and TSPP.

* * * Section 4 - First Aid Measures * * *

Emergency Overview

Odorless white powder or granules. Causes serious eye damage. May cause irritation to skin, and respiratory tract. Decomposition of this product yields toxic fumes of phosphorus oxides, sodium oxides and phosphine. Firefighters should wear full protective equipment and clothing.

Potential Health Effects: Eyes

Tetrasodium Pyrophosphate causes serious eye damage. Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

Potential Health Effects: Skin

Product may cause mild to moderate irritation of the skin. Symptoms may include redness, swelling, rash, and itching.

Potential Health Effects: Ingestion

Ingestion of large amounts may cause irritation to the mouth and gastric system. Symptoms may include nausea, vomiting, abdominal pain, and diarrhea. Probable oral lethal dose (human) 0.5-5 g/kg, between 1 oz and 1 pint (or 1 lb) for 70 kg person (150 lb).

Potential Health Effects: Inhalation

Inhalation of dusts can cause irritation to the respiratory tract. Symptoms may include coughing and shortness of breath. Chronic exposures to high concentrations of dust may cause increased mucous flow in the nose and respiratory system airways. This condition usually disappears after exposure stops.

First Aid: Eyes

In case of contact with eyes, rinse immediately with plenty of water for at least 15 minutes. Seek immediate medical attention.

First Aid: Skin

Remove all contaminated clothing. For skin contact, wash thoroughly with soap and water for at least 20 minutes. Seek immediate medical attention if irritation develops or persists.

Material Name: Tetrasodium Pyrophosphate, Anhydrous

First Aid: Ingestion

Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Immediately give large amounts of water. If vomiting occurs naturally, rinse mouth and repeat administration of water. Obtain medical advice immediately. Never give anything by mouth to a victim who is unconscious or having convulsions.

First Aid: Inhalation

Remove source of contamination or move victim to fresh air. Apply artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Administer oxygen if breathing is difficult. Get immediate medical attention.

First Aid: Notes to Physician

Provide general supportive measures and treat symptomatically.

* * * Section 5 - Fire Fighting Measures * * *

General Fire Hazards

Tetrasodium Pyrophosphate is not combustible, and does not contribute to the intensity of a fire. Closed containers exposed to heat may explode. When involved in a fire, this material may decompose and produce irritating vapors, acrid smoke and toxic gases.

Hazardous Combustion Products

Decomposition of this product yields toxic fumes of phosphorus oxides, sodium oxides and phosphine.

Extinguishing Media

Use any media suitable for surrounding fires.

Fire Fighting Equipment/Instructions

Water spray may be used to cool containers and help prevent rupture. Firefighters should wear full protective gear and equipment.

NFPA Ratings: Health: 1 Fire: 0 Reactivity: 0 Other:

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

* * * Section 6 - Accidental Release Measures * * *

Containment Procedures

Stop the flow of material, if this can be done without risk. Contain the discharged material. If sweeping of a contaminated area is necessary use a dust suppressant agent, which does not react with product. Wipe down area routinely to avoid the accumulation of dusts.

Clean-Up Procedures

Small releases can be cleaned-up wearing gloves, goggles and suitable body protection. Pre-wetting of material is recommended to prevent dust. Vacuum up the spilled material. In case of a large spill (in which excessive dusts can be generated), clear the affected area, protect people, and respond with trained personnel. Place all spill residues in an appropriate container and seal. Thoroughly wash the area after a spill or leak clean-up. Prevent contamination of spill or clean-up rinsate to sewers or soil.

Evacuation Procedures

Evacuate the area promptly and keep upwind of the spilled material. Isolate the spill area to prevent people from entering. In case of large spills, follow all facility emergency response procedures.

Special Procedures

Flush soiled area with large amounts of water to remove any traces of product. Wear personal protective equipment. Avoid inhalation of dusts. Ventilate area.

Safety Data Sheet Material Name: Tetrasodium Pyrophosphate, Anhydrous

* * * Section 7 - Handling and Storage * * *

Handling Procedures

All employees who handle this material should be trained to handle it safely. Do not breathe dust. Avoid all contact with skin and eyes. Use this product only with adequate ventilation. Wash thoroughly after handling.

Storage Procedures

Store at room temperature in a dry, well-ventilated place out of direct sunlight. Keep separate from strong acids. Avoid dust build-up. Keep container tightly closed when not in use. Material should be stored in secondary containers or in a diked area, as appropriate. Store containers away from incompatible chemicals (see Section 10, Stability and Reactivity). Floors should be sealed to prevent absorption of this material. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged. Have appropriate extinguishing equipment in the storage area (i.e., sprinkler system, portable fire extinguishers). Empty containers may contain residual particulates; therefore, empty containers should be handled with care. Do not cut, grind, weld, or drill near this container. Never store food, feed, or drinking water in containers that held this product. Keep this material away from food, drink and animal feed. Do not store this material in open or unlabeled containers. Limit quantity of material stored.

* * * Section 8 - Exposure Controls / Personal Protection * * *

Exposure Guidelines

A: General Product Information

Follow the applicable exposure limits.

B: Component Exposure Limits

Tetrasodium Pyrophosphate (7722-88-5) ACGIH: 5 mg/m3 TWA OSHA: 5 mg/m3 TWA (Vacated 1989 PEL) NIOSH: 5 mg/m3 TWA

Engineering Controls

Ventilation must be sufficient to effectively remove and prevent buildup of dust or fumes that may be generated during handling or thermal processing. Use general ventilation and use local exhaust, where possible, in confined or enclosed spaces.

PERSONAL PROTECTIVE EQUIPMENT

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132). Please reference applicable regulations and standards for relevant details.

Personal Protective Equipment: Eyes/Face

Wear chemical safety goggles. If necessary, refer to U.S. OSHA 29 CFR 1910.133.

Personal Protective Equipment: Skin

Use impervious gloves. Gloves should be tested to determine their suitability for prolonged contact with this material. If necessary, refer to U.S. OSHA 29 CFR 1910.138.

Personal Protective Equipment: Respiratory

None required where adequate ventilation conditions exist. If airborne concentration is high, use an appropriate respirator or dust mask. If airborne concentrations are above the applicable exposure limits, use NIOSH-approved respiratory protection. If respiratory protection is needed, use only protection authorized in the U.S. Federal OSHA Standard (29 CFR 1910.134), applicable U.S. State regulations. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, use of a full-facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under OSHA's Respiratory Protection Standard (1910.134-1998).

Personal Protective Equipment: General

Wash hands thoroughly after handling material. Do not eat, drink or smoke in work areas. Have a safety shower or eye-wash fountain available.

Material Name: Tetrasodium Pyrophosphate, Anhydrous

Protective Clothing Pictograms:



* * * Section 9 - Physical & Chemical Properties * * *

Physical Properties: Additional Information

The data provided in this section are to be used for product safety handling purposes. Please refer to Product Data Sheets, Certificates of Conformity or Certificates of Analysis for chemical and physical data for determinations of quality and for formulation purposes.

Appearance:	White	Odor:	Odorless
Physical State:	Powder or granules	pH:	10.2 (1% solution)
Vapor Pressure:	0	Vapor Density:	Not applicable
Initial boiling point		Melting Point:	1810 deg F (988 deg C)
and boiling range:	Not applicable	C C	
Solubility (H2O):	6.7 g/100 ml @ 25 deg C	Specific Gravity:	2.45 (H2O=1)
Freezing Point:	Not applicable	Particle Size:	Not determined
Bulk Density:	0.8-0.9 g/cm3 (loose)	Molecular Weight:	265.94
VOC:	Not determined	Partition coefficient: n-	
		octanol/water:	Not available
Flash Point:	Not applicable	Sat. Vapor Conc.:	Not available
Odor threshold:	Not applicable	Chemical Formula:	Na4P2O7
Upper Flammable		Lower Flammable	
Limit (UFL):	Not applicable	Limit (LFL):	Not applicable
Flammability (solid,		Auto Ignition	
gas)	Not flammable	temperature:	Not
: Relative	Not available	Rate of Burning:	applicable
density:		Evaporation rate:	applicable
Decomposition	Not available	Viscosity:	Not
temperature:			applicable
			Not
			applicable

* * * Section 10 - Chemical Stability & Reactivity Information * * *

Chemical Stability

Stable under conditions of normal temperature and pressure. Slow dehydration (efflorescence) can occur in dry air. Tetrasodium Pyrophosphate is stable in alkaline aqueous solutions, but will hydrolyze rapidly in acidic conditions to orthophosphate. Tetrasodium Pyrophosphate slowly hydrolyzes to disodium phosphate in neutral aqueous solutions.

Chemical Stability: Conditions to Avoid

Contact with incompatible materials, high temperatures.

Incompatibility

Strong acids - may react violently. Strong oxidizing agents (e.g. perchlorates, peroxides). Solutions may be corrosive to aluminum, iron and other reactive metals.

Hazardous Decomposition

Thermal decomposition products include phosphorus oxides and sodium oxides.

Hazardous Polymerization

Will not occur.

Material Name: Tetrasodium Pyrophosphate, Anhydrous

* * * Section 11 - Toxicological Information * * *

Acute and Chronic Toxicity

A: General Product Information

Tetrasodium pyrophosphate is an irritant of the eyes, skin, and respiratory tract because of its alkaline, corrosive nature. Tetrasodium pyrophosphate may cause moderate eye irritation. Symptoms may include redness, tearing, and swelling of the exposed eye. Direct contact of tetrasodium pyrophosphate to the rabbit eye caused severe irritation and corneal injury. Tetrasodium Pyrophosphate may cause mild to moderate irritation of the skin. Symptoms may include redness, swelling, rash, and itching of the exposed skin. Ingestion of large amounts may cause irritation to the mouth and gastric system, and may induce metabolic acidosis and hypocalcemia. Symptoms may include nausea, vomiting, abdominal pain, and diarrhea. When administered orally to rats at 1.8% to 3% of the diet for 4 to 6 months, Tetrasodium Pyrophosphate caused kidney damage, possibly due to the deposition of calcium pyrophosphate or orthophosphate crystals. Inhalation of dusts can cause irritation to the respiratory tract. Symptoms may include coughing and shortness of breath.

B: Component Analysis - LD50/LC50

Tetrasodium Pyrophosphate (7722-88-5)

LD₅₀ (Oral-Rat) 300-4000 mg/kg; LD₅₀ (Oral-Mouse) 2980 mg/kg; LD₅₀ (Intraperitoneal-Rat) 59 mg/kg: Behavioral: excitement; Nutritional and Gross Metabolic: weight loss or decreased weight gain; LD₅₀ (Intravenous-Rat) 100 mg/kg; LD₅₀ (Intravenous-Mouse) 69 mg/kg; LD₅₀ (Subcutaneous-Mouse) 400 mg/kg

C: Component Analysis - LD

Tetrasodium Pyrophosphate (7722-88-5) LD (Skin-Rabbit) > 300 mg/kg Carcinogenicity

Carcinogenicity

A: General Product Information

No information available.

B: Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

Epidemiology

No information available.

Neurotoxicity

No information available.

Mutagenicity

Negative results in genotoxicity tests in vitro Paramecium species. Negative results were also obtained in tests using bacteria and yeast cells, with and without enzymatic activation.

Teratogenicity

Tetrasodium Pyrophosphate has caused birth defects in chickens, however, it is not considered to be a reproductive hazard in humans. Tetrasodium Pyrophosphate was fed to mice (dose up to 130 mg/kg) and rats (up to 138 mg/kg) on days 6-15 of pregnancy with no effects on pregnancy outcome.

Other Toxicological Information

Inorganic phosphates have been studied extensively because of their use as food additives. Very high oral doses (1% in the diet) have produced toxic effects on the kidneys and parathyroid glands.

* * * Section 12 - Ecological Information * * *

Ecotoxicity

A: General Product Information

No information available.

B: Aquatic Toxicity

No ecotoxicity data are currently available for this compound.

Safety Data Sheet Material Name: Tetrasodium Pyrophosphate, Anhydrous

Environmental Fate

No information available.

* * * Section 13 - Disposal Considerations * * *

US EPA Waste Number & Descriptions

A: General Product Information

Waste, if discarded, is not expected to be a characteristic hazardous waste under RCRA. **B:** Component Waste Numbers No EPA Waste Numbers are applicable for this compound.

Disposal Instructions

All wastes must be handled in accordance with local, state and federal regulations or with. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

* * * Section 14 - Transportation Information * * *

NOTE: The shipping classification information in this section (Section 14) is meant as a guide to the overall classification of the product. However, transportation classifications may be subject to change with changes in package size. Consult shipper requirements under I.M.O., I.C.A.O. (I.A.T.A.) and 49 CFR to assure regulatory compliance.

US DOT Information

Shipping Name: Not applicable. Hazard Class: Not applicable UN/NA #: Not applicable Packing Group: Not applicable Required Label(s): Not applicable **RO Quantity:** Not applicable

International Air Transport Association (IATA):

For Shipments by Air transport: Not considered hazardous.

International Maritime Organization (I.M.O.) Classification

I.M.O. Classification: Not considered hazardous under IMDG/ I.M.O. regulations.

* * * Section 15 - Regulatory Information * * *

US Federal Regulations

A: General Product Information None

B: Component Analysis

None of this product's components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

C: Sara 311/312 Tier II Hazard Ratings:

Component	CAS #	Fire Hazard	Reactivity Hazard	Pressure Hazard	Immediate Health Hazard	Chronic Health Hazard
Tetrasodium Pyrophosphate	7722-88-5	No	No	No	Yes	No

State Regulations

A: General Product Information

Other state regulations may apply.

B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Material Name: Tetrasodium Pyrophosphate, Anhydrous

Component	CAS #	CA	FL	MA	MN	NJ	PA
Tetrasodium Pyrophosphate	7722-88-5	Yes	Yes	Yes	Yes	Yes	Yes

Other Regulations

A: General Product Information

Not determined.

B: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	EINECS
Tetrasodium Pyrophosphate	7722-88-5	Yes Active	Yes	Yes

C: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Tetrasodium Pyrophosphate	7722-88-5	1% item 1536 (1462)

* * * Section 16 - Other Information * * *

Other Information

Level 7 Chemical shall not be responsible for the use of any information, product, method, or apparatus herein presented ("Information"), and you must make your own determination as to its suitability and completeness for your own use, for the protection of the environment, and for health and safety purposes. You assume the entire risk of relying on this Information. In no event shall Level 7 Chemical be responsible for damages of any nature whatsoever resulting from the use of this product or products, or reliance upon this Information. By providing this Information, Level 7 Chemical neither can nor intends to control the method or manner by which you use, handle, store, or transport Level 7 Chemical's products. If any materials are mentioned that are not Level 7 Chemical's products, appropriate industrial hygiene and other safety precautions recommended by their manufacturers should be observed. Level 7 Chemical makes no representations or warranties, either express or implied of merchantability, fitness for a particular purpose or of any other nature regarding this information, and nothing herein waives any of Level 7 Chemical's conditions of sale. This information could include technical inaccuracies or typographical errors. Level 7 Chemical may make improvements and/or changes in the product (s) and/or the program (s) described in this information at any time.

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration