



Silver Fern Chemical, Inc.

SAFETY DATA SHEET

Tetrapotassium Pyrophosphate (TKPP)

1. Identification of the Substance and of the Company

Revised: February 19, 2016

Product Name: Tetrapotassium Pyrophosphate (TKPP) Granular NSF Grade

Product Use: Water processing, washing agent and detergent, textile and leather agent, ceramic, enamel, colors, food additive.

Company

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Business Contact

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2. Hazard Identification

GHS-US Classification

Skin irritation (Category 2), H315
Eye irritation (Category 2A), H319
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

GHS-US Label elements

Pictogram



Signal word: WARNING

GHS-US Hazard statement(s)

H315: Causes skin irritation.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.

Precautionary statement(s)

P202: Do not handle until all safety precautions have been read and understood.
P261: Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P262: Do not get in eyes, on skin, or on clothing.
P264: Wash hands and other exposed area thoroughly after handling.
P301 + P330 + P331+ P312: IF SWALLOWED Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/ doctor/ medical personnel if you feel unwell.
P303 + P361 + P351 + P333 + P313: IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse cautiously with water for several minutes. If skin irritation or rash occurs: Get medical advice/attention.

P304 + P340 + P342 + P311: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

P305 + P351 + P338 + P337 + P313: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

P363: Wash contaminated clothing before reuse.

P390: Absorb spillage to prevent material damage.

P405: Store locked up.

P501: Dispose of contents/ container to an approved waste disposal plant in accordance with federal, state and local environmental control regulations.

3. Composition/ Information on Ingredients

Synonyms: Diphosphoric acid, tetrapotassium salt; Phosphosol; Potassium diphosphate; Potassium pyrophosphate; Pyrophosphoric acid, tetrapotassium salt; Tetrapotassium diphosphate; TKPP.

CAS #: 7320-34-5

EC #: 230-785-7

Molecular Formula: $K_4P_2O_7$

Molecular Weight: 330.34 g/mole

Appearance: Granular

Assay: 90% Min.

4. First-Aid Measures

Eye Contact

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical attention if irritation occurs.

Skin Contact

Remove any contaminated clothing. Wipe off excess from skin. Wash skin with soap and flush with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.

Inhalation

If inhaled, remove to fresh air immediately and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention for any breathing difficulty.

Ingestion

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

5. Fire-Fighting Measures

Special Hazards Arising from the Substance or Mixture

Oxides of phosphorus, Potassium oxides

Fire-Fighting Equipment/ Instructions

Evacuate personnel to a safe area. If necessary, firefighters should use self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.



Extinguishing Media

Suitable extinguishing media such as water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

Use proper personal protective equipment as indicated in Section 8. Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of dust from the spilled material. Ensure adequate ventilation.

Small Spill

Use appropriate tools to put the spilled solid in a convenient waste disposal container. If necessary: Neutralize the residue with a dilute solution of acetic acid. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill

Use a shovel to put the material into a convenient waste disposal container. Neutralize the residue with a dilute solution of acetic acid. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

7. Handling and Storage

Precautions

Avoid breathing dust, vapor, mist, or gas. Avoid contact with eyes, skin, and clothing. Do not swallow. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Wash hands and other exposed areas with mild soap and water after handling. Handle in accordance with good industrial hygiene and safety procedures.

Storage

Keep container tightly closed. Store in a dry, cool, and well-ventilated place. Keep away from heat. Empty containers should be handled with care because it may contain residual amounts of this product.

8. Exposure Controls / Personal Protection

Engineering Controls

Use adequate ventilation or other engineering controls to keep airborne concentrations below recommended exposure limits. See **OSHA Regulations state in 29 CFR 1910.151 (c)** for an eyewash facility and safety shower requirement.

Personal Protective Equipment

Eyes: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134. Use a NIOSH/MSHA approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.



9. Physical and Chemical Properties

Appearance: White and/ or pink granular/ powder

Assay: 90.0% Min

pH-value (10 g/l) at 20 °C (68 °F): 10.3

Change in condition

Melting point/ Melting range: 1.1 °C (34 °F)

Boiling point/ Boiling range: Undetermined.

Flash point: Not applicable.

Flammability (solid, gaseous): Product is not flammable.

Ignition temperature:

Decomposition temperature: Not determined.

Auto igniting: Not determined.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower: Not determined.

Upper: Not determined.

Vapor pressure: Not applicable.

Density: Not determined.

Bulk density at 20 °C (68 °F): 900 kg/m³

Relative density Not determined.

Vapour density Not applicable.

Evaporation rate Not applicable.

Solubility in / Miscibility with Water at 20 °C (68 °F): 1.8 g/l

Partition coefficient (n-octanol/ water): Not determined.

Viscosity:

Dynamic: Not applicable.

Kinematic: Not applicable.

Other information Maximum use for Potable water = 16 mg/kg

Products of combustion: No data available.

Fire hazards in presence of various substances: No data available.

Risks of explosion of the product in presence of mechanical impact: No data available.

10. Stability and Reactivity

Stability: Stable under recommended storage conditions.

Reactivity: Not data available

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Possibility of hazardous reactions No dangerous reactions known.

Conditions to avoid: extreme heat and excessive moisture.

Incompatible materials: Strong oxidizing agents

Hazardous decomposition products: Phosphorus oxides, Potassium Oxide

11. Toxicological Information

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification: Oral LD50 >2000 mg/kg (mouse)

Primary irritant effect

Skin: No irritant effect.

Eye: Strong irritant with the danger of severe eye injury.

Sensitization: No sensitizing effects known.

Additional toxicological information

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

Carcinogenicity

The components of this product are not listed as carcinogen by ACGIH, IARC, NIOSH, NTP, or OSHA

Special Remarks on Chronic Effects on Humans: To the best of our knowledge, the toxicological properties of this substance have not been thoroughly investigated.

Special Remarks on other Toxic Effects on Humans: Material is irritating to mucous membranes and upper respiratory tract.

12. Ecological Information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability: No further relevant information available.

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects: No further relevant information available.

13. Disposal Information

Waste Disposal

Keep out of sewers and waterways. Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. Transport Information

UN-Number

· DOT, ADR, ADN, IMDG, IATA: Void

UN proper shipping name

· DOT, ADR, ADN, IMDG, IATA: Void

Transport hazard class(es)

· DOT, ADR, ADN, IMDG, IATA

· **Class:** Not restricted for transport

Packing group

· DOT, ADR, IMDG, IATA: Void

Environmental hazards:

· **Marine pollutant:** No

Special precautions for user: Not applicable.



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Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:
Not regulated for transport.

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Sara

- **Section 355 (extremely hazardous substances):** Substance is not listed.
- **Section 313 (Specific toxic chemical listings):** Substance is not listed.
- **TSCA (Toxic Substances Control Act):** Substance is listed.

Proposition 65

- **Chemicals known to cause cancer:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.
- **Chemicals known to cause developmental toxicity:** Substance is not listed.

Carcinogenic categories

- **EPA (Environmental Protection Agency)** Substance is not listed.
- **TLV (Threshold Limit Value established by ACGIH)** Substance is not listed.
- **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.

Product related hazard informations:

The substance is not subject to classification according to the sources of literature known to us. Observe the general safety regulations when handling chemicals.

Safety phrases:

Avoid contact with eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. Other Information

HMIS Rating

Health: 2

Flammability: 0

Physical Hazard 0

Personal Protection:

NFPA Rating

Health: 2

Flammability: 0

Instability: 0

Special Hazards:

Revision Date: February 19, 2016

DISCLAIMER OF RESPONSIBILITY

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