

Material Safety Data Sheet (MSDS)

Product Name: Tri Calcium Phosphate Food Grade

MSDS Generate Date: 20-05-2017

Revision Date: 30-12-2024

Supplier:

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1. Identification of the Substance/Preparation and Company

- **Product Name:** Tri Calcium Phosphate (Food Grade)
- **Synonyms:** TCP; Calcium Phosphate, Tribasic
- **Chemical Formula:** $\text{Ca}_3(\text{PO}_4)_2$

2. Hazards Identification

- **Classification:** Not classified as hazardous under GHS.
- **Hazard Statements:**
 - May cause mild irritation to eyes, skin, and respiratory tract if inhaled as dust.
- **Precautionary Statements:**
 - Avoid dust formation.
 - Use adequate ventilation.

- Wash hands after handling.
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3. Composition / Information on Ingredients

- **Chemical Name:** Tri Calcium Phosphate
 - **Molecular Formula:** $\text{Ca}_3(\text{PO}_4)_2$
 - **Molecular Weight:** 310.18 g/mol
 - **CAS Number:** 7758-87-4
 - **Purity:** Food Grade
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4. First Aid Measures

- **Inhalation:** Move to fresh air. If discomfort persists, seek medical advice.
 - **Skin Contact:** Wash with soap and water. If irritation develops, get medical attention.
 - **Eye Contact:** Rinse cautiously with plenty of water for at least 15 minutes. Seek medical advice if irritation persists.
 - **Ingestion:** Rinse mouth with water. If large amounts are ingested, seek medical advice.
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5. Firefighting Measures

- **Suitable Extinguishing Media:** Water spray, dry chemical, foam, CO_2 .
 - **Special Hazards:** Non-flammable and non-combustible.
 - **Protective Equipment for Firefighters:** Wear protective clothing and self-contained breathing apparatus.
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6. Accidental Release Measures

- Avoid dust formation.
- Sweep up material and place into suitable container for disposal.
- Use protective equipment (gloves, goggles, dust mask).
- Wash spill area with water.

7. Handling and Storage

- **Handling:** Avoid inhalation of dust. Use with adequate ventilation.
- **Storage:** Store in a cool, dry, well-ventilated area. Keep container tightly closed. Avoid contact with strong acids.

8. Exposure Controls / Personal Protection

- **Exposure Limits:** Not established.
- **Respiratory Protection:** Use dust mask if dust is generated.
- **Eye Protection:** Safety goggles.
- **Skin Protection:** Protective gloves.
- **Engineering Controls:** Adequate ventilation.

9. Physical and Chemical Properties

- **Appearance:** White, odorless powder
- **Solubility:** Practically insoluble in water
- **Odor:** Odorless
- **pH:** Neutral to slightly basic (suspension in water)
- **Melting Point:** > 1000°C (decomposes)
- **Density:** ~3.14 g/cm³

10. Stability and Reactivity

- **Stability:** Stable under normal conditions.
 - **Incompatible Materials:** Strong acids.
 - **Hazardous Decomposition Products:** Calcium oxides and phosphorus oxides at high temperatures.
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11. Toxicological Information

- **Acute Toxicity:** Low toxicity, considered safe in food applications.
 - **Skin/Eye Irritation:** May cause mild mechanical irritation.
 - **Inhalation:** Dust may cause transient irritation of respiratory tract.
 - **Carcinogenicity/Mutagenicity:** Not classified as carcinogenic.
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12. Ecological Information

- **Ecotoxicity:** Not expected to be hazardous to the environment.
 - **Persistence/Degradability:** Inorganic compound, persists in environment.
 - **Bioaccumulation:** Not bioaccumulative.
 - **Mobility:** Low mobility in soil.
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13. Disposal Considerations

- Dispose of in accordance with local, state, and national regulations.
 - Material can often be disposed of as non-hazardous waste.
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14. Transport Information (Detailed)

- **UN Number:** Not applicable (non-hazardous).
- **UN Proper Shipping Name:** Not regulated.
- **Transport Hazard Class:** Not classified as dangerous goods.
- **Packing Group:** Not applicable.
- **Environmental Hazards:** Not considered environmentally hazardous.
- **Special Precautions for User:**
 - Avoid creating dust during handling and transport.
 - Ensure packaging is secure and dry.
- **Transport in Bulk (IMDG, IBC Code):** Not applicable.

- **Road Transport (ADR/RID):** Not regulated as hazardous material.
 - **Air Transport (ICAO/IATA):** Not classified as dangerous goods; can be transported freely with general cargo.
 - **Sea Transport (IMDG/IMO):** Not restricted.
 - **Remarks:** Tri Calcium Phosphate Food Grade is safe and widely used in food, pharmaceuticals, and nutraceuticals. It does not fall under hazardous transport classifications, but best practices for packaging and labeling should be followed to prevent contamination or spillage.
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15. Regulatory Information

- Not classified as hazardous under GHS.
 - Complies with food-grade quality standards (IP/BP/USP/FCC as applicable).
 - No specific restrictions under international transport or chemical safety regulations.
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16. Other Information

- **Intended Use:** Food additive, nutritional supplement, excipient in pharmaceuticals.
- **Disclaimer:** The information contained herein is believed to be accurate and represents the best information currently available. However, no warranty is made, and the company shall not be held liable for any damage resulting from handling or contact with the product.
- **MSDS Generate Date:** 20-05-2017
- **Revision Date:** 30-12-2024
- **Website:** www.rawpharmabiz.com
- MSDS are based on the manufacturer's provided information.