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**CIN:** U24230GJ2011PTC064654

# Material Safety Data Sheet (MSDS)

**Product Name:** Tri Calcium Phosphate Micronized Grade

**MSDS Generate Date:** 20-05-2017

**Revision Date:** 30-12-2024

## Manufacturer / Supplier:

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## 1. Identification of the Substance/Preparation and Company

- **Product Name:** Tri Calcium Phosphate Micronized Grade
- **Synonyms:** TCP; Tricalcium Orthophosphate; Calcium Phosphate Tribasic
- **Molecular Formula:**  $\text{Ca}_3(\text{PO}_4)_2$
- **Molecular Weight:** 310.18 g/mol
- **Recommended Use:** Food additive, pharmaceutical excipient, nutritional supplement, and industrial applications.

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## 2. Hazard Identification

- **GHS Classification:** Not classified as hazardous.

- **Hazard Statements:** Not considered hazardous under normal handling and use.
  - **Precautionary Statements:**
    - Avoid inhalation of dust.
    - Use with adequate ventilation.
    - Wash hands thoroughly after handling.
  - **Emergency Overview:** White, odorless, fine micronized powder; poses little to no immediate hazard.
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### 3. Composition / Information on Ingredients

- **Chemical Name:** Tri Calcium Phosphate
  - **CAS No.:** 7758-87-4
  - **EC No.:** 231-840-8
  - **Purity:** ≥ 98% (Micronized Grade)
  - **Impurities:** No hazardous impurities expected.
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### 4. First Aid Measures

- **Inhalation:** Remove to fresh air. If irritation persists, seek medical attention.
  - **Skin Contact:** Wash with soap and water. No significant irritation expected.
  - **Eye Contact:** Rinse with water for several minutes. If irritation persists, consult a doctor.
  - **Ingestion:** Rinse mouth with water. Material is of low toxicity; if discomfort occurs, seek medical advice.
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### 5. Fire Fighting Measures

- **Flammability:** Non-flammable.
- **Suitable Extinguishing Media:** Use extinguishing media suitable for surrounding fire.

- **Special Hazards:** Product does not burn but may emit calcium oxide and phosphorus oxides if exposed to very high heat.
  - **Protective Equipment:** Wear self-contained breathing apparatus if involved in fire.
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## 6. Accidental Release Measures

- Avoid dust formation.
  - Sweep or vacuum material into suitable container for disposal.
  - Ensure adequate ventilation.
  - Prevent release into drains and natural waterways.
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## 7. Handling and Storage

- **Handling:** Avoid generating dust. Use personal protective equipment.
  - **Storage:** Store in tightly closed containers in a cool, dry, well-ventilated place. Protect from moisture.
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## 8. Exposure Controls / Personal Protection

- **Occupational Exposure Limits:** Not established; treat as nuisance dust (10 mg/m<sup>3</sup> TWA total dust).
  - **Engineering Controls:** Provide adequate ventilation and dust extraction.
  - **Personal Protection:**
    - Respiratory: Use NIOSH-approved dust mask if dust is generated.
    - Eyes: Safety glasses with side shields.
    - Hands: Protective gloves (optional).
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## 9. Physical and Chemical Properties

- **Appearance:** White, odorless micronized powder

- **Odor:** Odorless
  - **pH (suspension):** 6.5 – 7.5
  - **Melting Point:** Decomposes > 1670°C
  - **Boiling Point:** Not applicable
  - **Density:** ~3.14 g/cm<sup>3</sup>
  - **Solubility in Water:** Practically insoluble
  - **Partition Coefficient (n-octanol/water):** Not applicable
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## 10. Stability and Reactivity

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

- **Acute Toxicity:** Low; LD50 (oral, rat) > 2000 mg/kg.
  - **Skin Irritation:** Not expected.
  - **Eye Irritation:** May cause mild mechanical irritation.
  - **Carcinogenicity:** Not listed as carcinogenic.
  - **Mutagenicity:** Not mutagenic.
  - **Target Organs:** None known.
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## 12. Ecological Information

- **Ecotoxicity:** Not expected to be harmful to aquatic or terrestrial organisms.
- **Persistence and Degradability:** Inorganic substance; stable.

- **Bioaccumulative Potential:** Not bioaccumulative.
  - **Mobility in Soil:** Low mobility.
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### 13. Disposal Considerations

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

- **UN Number:** Not regulated (no UN number assigned).
  - **UN Proper Shipping Name:** Not regulated as dangerous goods.
  - **Transport Hazard Class(es):** Not applicable (non-hazardous).
  - **Packing Group:** Not applicable.
  - **Environmental Hazards:** Not environmentally hazardous.
  - **Special Precautions for User:**
    - Ensure packaging prevents dust release.
    - Transport in closed containers to avoid contamination.
    - Protect from moisture and mechanical damage.
  - **ADR/RID (Road/Rail in EU):** Not regulated.
  - **IMDG (Sea Transport):** Not classified as hazardous; transport in standard containers.
  - **IATA/ICAO (Air Transport):** Not restricted; can be shipped normally by air.
  - **Transport in Bulk (per MARPOL & IBC Code):** Not applicable (non-dangerous, non-liquid).
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### 15. Regulatory Information

- Not classified as hazardous under GHS, EU REACH, or OSHA standards.
- Complies with food, pharma, and cosmetic additive regulations where applicable.

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## 16. Other Information

- **References:** GHS guidelines, ECHA database, OSHA chemical safety resources.
- **Disclaimer:** The information provided in this MSDS is believed to be accurate and reliable. However, no warranty is expressed or implied. Users should ensure suitability for their specific applications.
- **MSDS Generate Date:** 20-05-2017
- **Revision Date:** 30-12-2024
- **Website:** [www.sbfpharma.com](http://www.sbfpharma.com)
- MSDS are based on the manufacturer's provided information.