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CIN: U24230GJ2011PTC064654

Material Safety Data Sheet (MSDS)

Product Name: Tri Calcium Phosphate IP Grade
MSDS Generate Date: 20-05-2017
Revision Date: 30-12-2024

Manufacturer / Supplier:

SBF Pharma
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1. Identification of the Substance/Preparation and Company

Product Name: Tri Calcium Phosphate (TCP) – IP Grade

Chemical Formula: $Ca_3(PO_4)_2$

Synonyms: Tricalcium phosphate, Calcium phosphate tribasic

Use of Substance: Pharmaceutical excipient, food additive, nutritional supplement.

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2. Hazards Identification

- **Classification (GHS):** Not classified as hazardous.
- **Hazard Statements:** May cause mild irritation to eyes, skin, or respiratory tract.
- **Precautionary Statements:**
  - Avoid dust inhalation.
  - Wash hands after handling.
  - Use in well-ventilated areas.

3. Composition / Information on Ingredients

- **Chemical Name:** Tri Calcium Phosphate
- **CAS No.:** 7758-87-4
- **EINECS No.:** 231-840-8
- **Purity:** ≥ 98%

4. First Aid Measures

- **Inhalation:** Move person to fresh air; seek medical attention if irritation persists.
- **Skin Contact:** Wash thoroughly with soap and water.
- **Eye Contact:** Rinse cautiously with plenty of water for several minutes. Remove contact lenses if present.
- **Ingestion:** Rinse mouth and drink water. Seek medical advice if large amount swallowed.

5. Fire Fighting Measures

- **Suitable Extinguishing Media:** Water, foam, CO_2, or dry chemical.
- **Fire Hazards:** Product is non-combustible.
- **Protective Equipment:** Firefighters should wear protective gear and self-contained breathing apparatus.

6. Accidental Release Measures

- Avoid dust generation.
- Sweep up material carefully and place in suitable container.
- Wash spill area with water.
- Use protective gloves, goggles, and dust mask.

7. Handling and Storage

- Handle in well-ventilated areas.
- Avoid inhalation of dust.
- Store in tightly sealed containers, in a cool, dry, and ventilated place.
- Protect from moisture.

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8. Exposure Controls / Personal Protection

- **Occupational Exposure Limit:** Not established (inert dust: 10 mg/m³ TWA).
- **Respiratory Protection:** Dust mask/respirator if airborne concentrations are high.
- **Eye Protection:** Safety glasses with side shields.
- **Skin Protection:** Gloves and protective clothing.
- **General Hygiene:** Wash hands after handling.

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9. Physical and Chemical Properties

- **Appearance:** White, odourless, crystalline powder.
- **Molecular Weight:** 310.18 g/mol
- **Solubility:** Practically insoluble in water.
- **pH (suspension):** 6.5 – 8.5
- **Melting Point:** Decomposes on heating.
- **Density:** 3.14 g/cm³

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10. Stability and Reactivity

- **Stability:** Stable under recommended conditions.
- **Conditions to Avoid:** Excessive moisture, strong acids.
- **Incompatible Materials:** Strong acids (releases phosphoric acid and calcium salts).
- **Hazardous Decomposition Products:** Calcium oxide and phosphorus oxides on heating.

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11. Toxicological Information

- **Acute Toxicity:** Low toxicity.
- **Inhalation:** May cause mild irritation to respiratory tract.
- **Skin Contact:** Not irritating under normal conditions.
- **Eye Contact:** Dust may cause mild irritation.
- **Ingestion:** Non-toxic in small amounts; excessive ingestion may affect mineral balance.

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12. Ecological Information

- **Ecotoxicity:** Not harmful to aquatic or terrestrial organisms.
- **Persistence & Degradability:** Inorganic compound, stable in environment.
- **Bioaccumulation:** No bioaccumulation expected.
- **Mobility:** Insoluble in water, settles in soil/sediment.

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13. Disposal Considerations

- Dispose in accordance with local regulations.
- Can be landfilled in compliance with environmental laws.
- Avoid release into sewage or natural water streams.

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14. Transport Information (Detailed)

Tri Calcium Phosphate is **not classified as a hazardous material** for transport by **ADR/RID, IMDG, ICAO/IATA** regulations.

- **UN Number:** Not applicable.
- **UN Proper Shipping Name:** Not regulated.
- **Transport Hazard Class:** Not classified as dangerous.
- **Packing Group:** Not applicable.
- **Environmental Hazards:** Not a marine pollutant.
- **Special Precautions:**

- Ensure packaging is secure and dry.
- Avoid spillage and dust formation during loading/unloading.
- Transport in tightly closed containers to prevent contamination.

- **Regulatory Notes:** Transport as a non-hazardous chemical in compliance with national and international road, sea, or air transport regulations.
- **Labeling Requirements:** No hazard labels required; mark as “Non-Hazardous Inorganic Compound”.
- **Bulk Transport (Annex II MARPOL/IBC Code):** Not applicable.

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15. Regulatory Information

- **EU Regulations:** Not classified as hazardous under EC regulations.
- **US Regulations (OSHA):** Considered non-hazardous.
- **India:** Not listed as hazardous chemical under Manufacture, Storage & Import of Hazardous Chemical Rules.

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16. Other Information

- The information provided is believed to be accurate and represents the best available data as of the revision date.
- This MSDS applies to IP Grade only.
- Users are responsible for safe handling according to applicable laws and regulations.
    - **MSDS Generate Date:** 20-05-2017
    - **Revision Date:** 30-12-2024
    - **Website:** www.sbfpharma.com
    - MSDS are based on the manufacturer’s provided information.