

## Material Safety Data Sheet (MSDS)

### Dicalcium Phosphate Dihydrate

Revision Date: 01-01-2026

Version: 1.0

#### Section 1: Product Identification

- **Product Name:** Dicalcium Phosphate Dihydrate
- **Chemical Formula:**  $\text{CaH}_5\text{O}_6\text{P}$
- **CAS No:** 7789-77-7
- **Synonyms:** Brushite, Calcium hydrogen phosphate dihydrate, Calcium phosphate dibasic dihydrate,  $\text{CaHPO}_4 \cdot 2\text{H}_2\text{O}$
- **Recommended Use:** Calcium and phosphate source; animal feed supplement; fertilizer additive; food fortification

#### Section 2: Hazards Identification

- **Classification (GHS):** Flammable liquids; Acute toxicity, Oral; Skin irritation; Eye irritation.
- **Signal Word:** Warning
- **Hazard Statements:**
  - Harmful if swallowed
  - Causes skin irritation and serious eye irritation
  - Combustible liquid
  - Keep away from heat/sparks/open flames. No smoking
  - Wear protective gloves/eye protection
  - **IF ON SKIN or IN EYES:** Rinse cautiously with water; seek medical advice if irritation persists

---

## Section 3: Composition / Information on Ingredients

- **Concentration:** 98–99%
- 

## Section 4: First Aid Measures

- **Inhalation:** Remove to fresh air. If symptoms develop, seek medical attention.
  - **Skin Contact:** Wash with plenty of soap and water. Remove contaminated clothing. Seek medical advice if irritation persists.
  - **Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses if present. Continue rinsing. Seek medical attention if irritation persists.
  - **Ingestion:** Rinse mouth. Do NOT induce vomiting. Seek medical advice if feeling unwell.
- 

## Section 5: Fire-Fighting Measures

- **Suitable Extinguishing Media:** Dry chemical, foam, carbon dioxide water spray.
  - **Specific Hazards:** Combustible liquid; emits toxic fumes of carbon oxides under fire conditions.
  - **Protective Equipment:** Firefighters should wear self-contained breathing apparatus and protective clothing.
- 

## Section 6: Accidental Release Measures

- **Personal Precautions:** Use personal protective equipment. Avoid breathing vapors. Ensure adequate ventilation. Eliminate ignition sources.
- **Environmental Precautions:** Prevent entry into drains and waterways.



- **Cleanup Methods:** Absorb with inert material. Collect in suitable container for disposal.
- 

## Section 7: Handling and Storage

- **Handling:** Avoid inhalation of vapors and contact with skin/eyes. Use with adequate ventilation. Keep away from ignition sources.
  - **Storage:** Keep container tightly closed. Store in a cool, dry, well-ventilated place away from heat and oxidizing agents.
- 

## Section 8: Exposure Controls / Personal Protection

- **Exposure Limits:** ACGIH TLV 50 ppm 205 mg/m<sup>3</sup> TWA; OSHA PEL not established.
  - **Engineering Controls:** Provide adequate ventilation and local exhaust if needed.
  - **Personal Protective Equipment:** Chemical-resistant gloves, safety goggles, protective clothing. Respirator if ventilation is inadequate.
- 

## Section 9: Physical and Chemical Properties

- **Appearance:** White powder
  - **Odor:** Odourless
  - **Boiling Point:** 1000 °C
  - **Flash Point:** 200 °C
  - **Solubility:** Sparingly soluble in water; soluble in acids
  - **Molecular Weight:** 172.09 g/mol
- 

## Section 10: Stability and Reactivity

- **Stability:** Stable under normal conditions.



- **Incompatible Materials:** Strong oxidizing agents.
  - **Hazardous Decomposition Products:** Carbon oxides under fire conditions.
- 

## Section 11: Toxicological Information

- **Routes of Exposure:** Inhalation, ingestion, skin and eye contact.
  - **Acute Effects:** Harmful if swallowed; causes skin and eye irritation; may cause respiratory irritation.
  - **Chronic Effects:** Prolonged or repeated exposure may cause dermatitis and liver/kidney effects.
- 

## Section 12: Ecological Information

- **Ecotoxicity:** May be harmful to aquatic life in high concentrations.
  - **Persistence and Degradability:** Expected to be biodegradable.
  - **Bioaccumulative Potential:** Low to moderate potential.
- 

## Section 13: Disposal Considerations

- Dispose of contents/container in accordance with local/regional/national regulations. Do not release into the environment.
- 

## Section 14: Transport Information

- **UN Number:** UN 1479
  - **Hazard Class:** Non-hazardous
  - **Proper Shipping Name:** Dicalcium Phosphate Dihydrate
- 



## Section 15: Regulatory Information

- Complies with Indian chemical safety regulations and listed under international chemical inventories.
  - Classified as hazardous substance as per GHS.
- 

## Section 16: Other Information

- **Disclaimer:** The above information is believed to be correct but does not claim to be exhaustive. Users are responsible for verifying suitability under actual conditions of use. **Triveni chemicals** disclaim any liability for damage resulting from handling or contact.

