

# Material Safety Data Sheet

(Dicalcium Phosphate, Dihydrate)

## Section 1: Chemical Product and Company Identification

**Product Name:** Dicalcium Phosphate

**Manufacturer:** Shanghai Yancui Import and Export Corporation

**Catalog Codes:** SLC2029, SLC3820

**CAS#:** 7789-77-7

**RTECS:** Not available.

**TSCA:** TSCA 8(b) inventory: No products were found. CI#: Not available.

**Synonym:** Dicalcium Phosphate Dihydrate, DCPD; Calcium Monohydrogen Phosphate; Dicalcium Orthophosphate, Dihydrate

**Chemical Name:** Calcium Phosphate, Dibasic, Dihydrate

**Chemical Formula:** Ca-H-P-O4.2H2O

## Section 2: Composition and Information on Ingredients

**Composition:** Ca and Phosphorus

**Name CAS # % by Weight:** Calcium Phosphate, Dibasic, Dihydrate 7789-77-7 100

**Toxicological Data on Ingredients:** Not applicable.

## Section 3: Hazards Identification

**Potential Acute Health Effects:** Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

**Potential Chronic Health Effects:**

- CARCINOGENIC EFFECTS: Not available.
- MUTAGENIC EFFECTS: Not available.
- TERATOGENIC EFFECTS: Not available.
- DEVELOPMENTAL TOXICITY: Not available.

Repeated or prolonged exposure is not known to aggravate medical condition.

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### Section 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. Get medical attention if irritation occurs.

**Skin Contact:** Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

**Serious Skin Contact:** Not available.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Serious Inhalation:** Not available.

**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.

**Serious Ingestion:** Not available.

### Section 5: Fire and Explosion Data

**Flammability of the Product:** Non-flammable.

**Auto-Ignition Temperature:** Not applicable.

**Flash Points:** Not applicable.

**Flammable Limits:** Not applicable.

**Products of Combustion:** Not available.

**Fire Hazards in Presence of Various Substances:** Not applicable.

**Explosion Hazards in Presence of Various Substances:**

-Risks of explosion of the product in presence of mechanical impact: Not available.

-Risks of explosion of the product in presence of static discharge: Not available.

**Fire Fighting Media and Instructions:** Not applicable.

**Special Remarks on Fire Hazards:** Not available.

**Special Remarks on Explosion Hazards:** Not available.

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### Section 6: Accidental Release Measures

**Small Spill:** Use appropriate tools to put the spilled solid in a convenient waste disposal container. 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. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

### Section 7: Handling and Storage

**Precautions:** Do not ingest. Do not breathe dust. If ingested, seek medical advice immediately and show the container or the label.

**Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area.

### Section 8: Exposure Controls/Personal Protection

**Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection:** Safety glasses. Lab coat. Dust respirator. Gloves. Be sure to use an approved/certified respirator or equivalent

**Personal Protection in Case of a Large Spill:** Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

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### Section 8 (Continued):

**Exposure Limits: For Particulates Not Classified (Nuisance dust):**

**TWA:** 10 (mg/m<sup>3</sup>) from ACGIH (TLV) [United States] Inhalation Total.

**TWA:** 3 (mg/m<sup>3</sup>) from ACGIH (TLV) [United States] Inhalation Respirable.

**TWA:** 15 (mg/m<sup>3</sup>) from OSHA (PEL) [United States] Inhalation Total.

**TWA:** 5 (mg/m<sup>3</sup>) from OSHA (PEL) [United States] Inhalation Respirable. Consult local authorities for acceptable exposure limits.

### Section 9: Physical and Chemical Properties

**Physical state and appearance:** Solid. (Powdered solid.)

**Odor:** Odorless.

**Taste:** Not available.

**Molecular Weight:** 172.09 g/mole

**Color:** White.

**pH (1% soln/water):** 7.2 - 7.5 (25% slurry)

**Boiling Point:** Not available.

**Melting Point:** Decomposition temperature: 190°C (374°F)

**Critical Temperature:** Not available.

**Specific Gravity:** Density: 2.31 (Water = 1)

**Vapor Pressure:** Not applicable.

**Vapor Density:** Not available.

**Volatility:** Not available.

**Odor Threshold:** Not available.

**Water/Oil Dist. Coeff.:** Not available. I

**Ionicity (in Water):** Not available.

**Dispersion Properties:** Not available.

**Solubility:** Insoluble in cold water, hot water, methanol, n-octanol.

**Solubility in water:** 0.032g/100 ml water. Readily soluble in dilute hydrochloric and nitric acids. Insoluble in alcohol.

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### Section 10: Stability and Reactivity Data

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Incompatible materials

**Incompatibility with various substances:** Reactive with oxidising agents. **Corrosivity:** Not available.

**Special Remarks on Reactivity:** Not available.

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** Will not occur.

### Section 11: Toxicological Information

**Routes of Entry:** Inhalation. Ingestion.

**Toxicity to Animals:** Acute oral toxicity (LD50): >10000 mg/kg [Rat]. Acute dermal toxicity (LD50): >7940 mg/kg [Rabbit].

**Chronic Effects on Humans:** Not available.

**Other Toxic Effects on Humans:** Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

**Special Remarks on Toxicity to Animals:** Not available.

**Special Remarks on Chronic Effects on Humans:** Not available.



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### Section 11 (Continued):

**Special Remarks on other Toxic Effects on Humans:** Acute Potential Health Effects:

**Skin:** Causes skin irritation. May cause dermatitis

**Eyes:** Causes eye irritation.

**Inhalation:** May cause respiratory tract irritation with coughing and sneezing.

**Ingestion:** May cause mild gastrointestinal tract irritation (distress), flatulence, cramps, nausea, vomiting, constipation or diarrhoea. No adverse health effects are expected to develop if only small amounts (less than a mouthful) are swallowed. If ingested in large amounts, Calcium salts may affect cardiovascular system (hypertension, atrial fibrillation, vasodilation), behaviour/nervous system (confusion, somnolence, coma, decreased tendon reflexes, depression, fatigue, hallucinations, lethargy, weakness, stupor), kidneys (abnormal renal function, renal calculus) depending on the amount and duration of ingestion. May also cause acidosis or alkalosis, hypercalcemia.

**Chronic Potential Health Effects:**

**Skin:** Repeated or prolonged contact may cause drying and chapping of the skin. The toxicological properties of this substance have not been fully investigated.

### Section 12: Ecological Information

**Ecotoxicity:** Ecotoxicity in water (LC50): >1000 mg/l 96 hours [Daphnia (daphnia)].

**BOD5 and COD:** Not available.

**Products of Biodegradation:** Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The product itself and its products of degradation are not toxic.

**Special Remarks on the Products of Biodegradation:** Not available.

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### Section 13: Disposal Considerations

**Waste Disposal:** Waste must be disposed of in accordance with national and local environmental control regulations.

### Section 14: Transport Information

**DOT Classification:** Not a DOT controlled material (United States).

**Identification:** Not applicable.

**Special Provisions for Transport:** Not applicable.

### Section 15: Other Regulatory Information

**Federal and State Regulations:** No products were found.

**Other Regulations:** Not available.

**Other Classifications:** WHMIS (Canada): Not controlled under WHMIS (Canada).

**DSCL (EEC):** R36/37/38- Irritating to eyes, respiratory system and skin. S24- Avoid contact with skin. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36- Wear suitable protective clothing.

**HMIS (U.S.A.):**

**Health Hazard:** 1

**Fire Hazard:** 0

**Reactivity:** 0

**Personal Protection:** E

**National Fire Protection Association (U.S.A.):**

**Health:** 1

**Flammability:** 0

**Reactivity:** 0

**Specific hazard:**

**Protective Equipment:** Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety glasses.

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### Section 16: Other Information

**References:** Not available.

**Other Special Considerations:** Not available.

**Created:** 10/09/2005 04:32 PM

**Last Updated:** 11/06/2008 12:00 PM

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