

**AERCHEM INC.**  
**320 North Walnut**  
**Bloomington, IN 47408**

Tel: 812.334.9996      Fax: 812.334.1960      Emergency: 800.424.9300

**SECTION**

**1: IDENTIFICATION**

**Effective Date:** 9/23/97  
**Product Name:** Dicalcium Phosphate Dihydrate  
**Molecular Formula:** CaHPO<sub>4</sub> · 2H<sub>2</sub>O  
**CAS No.:** 7789-77-7

**SECTION**

**2: HAZARDOUS INGREDIENTS:**

**Eyes:** No more than slightly irritating based on toxicity studies. Dry powder may cause foreign body irritation in some individuals.  
**Skin:** No more than slightly toxic or slightly irritating based on toxicity studies. Prolonged contact with dry powder may cause drying or chapping of skin.  
**Inhalation:** May cause coughing and sneezing.  
**Ingestion:** Not toxic if swallowed based on toxicity studies. No significant adverse health effects are expected to develop if only small amounts (less than a mouthful) are swallowed

**SECTION**

**3: PHYSICAL DATA**

Odor:	odorless
Appearance:	white powder
Melting point.:	decomposes at about 190°C
Boiling point:	n/a
Decomposition temperature:	see melting point
pH (depends on quality):	7.2-7.5 (20g/80g H <sub>2</sub> O)
Solubility in water:	practically insoluble (0,032 g/100mL H <sub>2</sub> O)
Solubility in other solvents:	readily soluble in dilute hydrochloric and nitric acids; insoluble in alcohol

**SECTION 4: FIRE AND EXPLOSION DATA**

Flash point:	n/a
Flammability:	not combustible
Extinguishing media:	not applicable
Unusual fire and explosions hazards:	none

**SECTION 5: REACTIVITY DATA**

Stable   X                        Unstable \_\_\_\_\_  
**Decomposition byproducts:** none  
**Incompatibilities/Condition to Avoid:** none  
**Hazardous Polymerization:** will not occur

**SECTION 6: HEALTH HAZARD DATA**

**Toxicity:** oral, rat, LD50: > 10,000 mg/kg; practically nontoxic  
dermal, rabbit, LD50: > 7,940 mg/kg; practically nontoxic  
eye, rabbit: 3.3/110.0; slightly irritating  
skin, rabbit: 0.0/8.0 (4 hr exp); nonirritating  
No adverse genetic changes were reported in standard tests using bacterial cells.

**Route of Entry:** skin and inhalation  
**Permissible Exposure limits:** 15mg/m<sup>3</sup> (total dust) 8 hr TWA; 5mg/m<sup>3</sup> (respirable) 8hr TWA  
**TLV:** 10mg/m<sup>3</sup> (inhalable) 8hr TWA; 3mg/m<sup>3</sup> (respirable) 8hr TWA

**SECTION 7: SPILLAGE AND DISPOSAL PROCEDURES**

**Spillage:** Sweep, scoop, or vacuum and remove. Flush residual spill with water.  
**Disposal:** Not hazardous waste as defined by RCRA, 40CFR 261. Dry material may be landfilled or recycled in accordance with local, state and federal regulations. Consult attorney or appropriate regulatory officials for information on such disposal.

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**SECTION 8: FIRST AID PROCEDURES**

**Eye and Skin Contact:** Immediate first aid is not likely to be required. However, this material can be removed with water. Wash heavily contaminated clothing before reuse.

**Inhalation:** Immediate first aid not likely to be required. However, if symptoms occur, remove to fresh air. Remove material from eyes, skin and clothing.

**Ingestion:** Immediate first aid not likely to be required. A physician or Poison Control Center can be contacted for advice. Wash heavily contaminated clothing before reuse.

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**SECTION 9: HANDLING AND STORAGE INFORMATION:**

Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of material from eyes, skin, and clothing. Store in a cool, dry place to maintain product performance.

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**SECTION 10: SPECIAL PROTECTION INFORMATION:**

**Ventilation:** Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits. Use of mechanical ventilation is preferred at sources of air contamination such as open process equipment.

**Skin Protection:** Follow good industrial practice. Gloves are recommended. Wash hands after handling.

**Eye Protection:** Follow good industrial practice. Does not cause significant irritation or toxicity.

**Respiratory Protection:** Avoid breathing dust. Use NIOSH/MSHA approved respiratory protection equipment when airborne exposure is excessive. Consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH/MSHA or the manufacturer.

**Other:** n/a

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**SECTION 11: TRANSPORT INFORMATION**

**DOT Classification:** not hazardous

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**SECTION 12: ECOLOGICAL INFORMATION**

The following data have been classified using criteria adopted by the European Economic Community for aquatic organism toxicity. Invertebrate: 96hr EC50 daphnia magna: >1000mg/L; practically non-toxic.