

Material Safety Data Sheet

Tricalcium Phosphate

Section 1: Chemical Product and Company Identification

Product Name: Tricalcium Phosphate

Chemical Name: Calcium Phosphate tribasic

Customs Tariff No: 28352600

Synonym Name:

Chemical Formula: $\text{C}_6\text{H}_{10}\text{CaO}_6 \cdot 5\text{H}_2\text{O}$

Company Information:

Chemtrade International

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Xiangjiang Road, Qingdao Development Zone,
Qingdao, Shandong, China 266555

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Section 2: Composition and Information on Ingredients

Composition:

Name	CAS No.	EINECS No.	%by weight
Tricalcium Phosphate	1306-06-5	231-840-8	100

Section 3: Hazards Identification

Classification of the substance/preparation

EC Classification None

Safety Phrase S24/25

Human Health Effects

Contact with eyes or skin may cause irritation. Inhalation of dust may cause respiratory tract irritation. Irritation to the gastrointestinal tract may occur following ingestion. Nausea, vomiting and diarrhea may also occur.

Environmental Effects

This material is not expected to product any significant adverse environmental effects when recommended use instructions are followed.

Section 4: First Aid Measures

General

May cause eye and skin irritation. May cause respiratory tract irritation. Ingestions of large amounts may cause gastrointestinal irritation, nausea, vomiting, cramps, and diarrhea. Treatment is symptomatic and supportive.

Eye contact

May cause eye irritation. In case of contact, immediately flush eyes plenty of water. Seek medical attention.

Skin contact

May cause skin irritation. In case of contact, immediately flush skin with plenty of water. Get medical attention if irritation develops.

Inhalation

Remove to fresh air immediately. If breathing is difficult, give oxygen. If not breathing, give artificial respiration

Ingestion

If conscious and alert, rinse mouth and give 2-4 cups of milk or water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting - Obtain medical attention.

Section 5: Fire and Explosion Data

Extinguishing media

Non-combustible

No special requirement.

Use water spray, dry chemical, carbon dioxide or appropriate foam.

Unsuitable extinguishable media

Non-combustible

No special requirement.

Exposure hazards

No special considerations

Protective equipment

As a general precaution, firefighters and others exposed, wear self-contained breathing apparatus.

Section 6: Accidental Release Measures**Personal precautions**

Avoid unnecessary exposure and remove all material from eyes, skin and clothing.

Environmental precautions

Small quantities: Avoid discharge into the environment

Large quantities: Avoid discharge into the environment – See section 15

Method for cleaning up

Sweep, scoop or vacuum spill material, contaminated soil and other contaminated material and place in clean, dry containers for removal. Residual material can be flushed with water.

Section 7: Handling and Storage**Handling:**

Handle in accordance with good industrial hygiene and safety practices.

Avoid contact with eyes.

Wash hands immediately after handling

Remove material from clothing.

Engineering measures

Ensure adequate ventilation. The use of local mechanical exhaust ventilation is preferred at sources of air contamination such as open process equipment.

Storage

Store in cool, dry place to maintain product performance.

Section 8: Exposure Controls/Personal Protection**Occupational Exposure limit**

ACGIH TLV 10 mg/m³ (inhalable) 8-hr TWA, 3 mg/m³ (respirable) 8-hr TWA

OSHA PEL 15 mg/m³ (total dust) 8-hr TWA, 5 mg/m³ (respirable) 8-hr TWA

OSHA and ACGIH have not established specific exposure limits for this material. However, OSHA and ACGIH have established limits for particulates not otherwise regulated (PNOR) and particulates not otherwise classified (PNOC) which are the least stringent exposure limits applicable to dusts.

Respiratory protection

Avoid breathing dust. In case of insufficient ventilation, use approved respiratory protective equipment as described in OSHA 29 CFR 1910.134 or European Standard EN149. A dust respirator is recommended.

Hand/Skin protection

Wearing protective gloves to prevent skin exposure; wash hands and contaminated skin thoroughly after exposure to the product.

Eye protection

Wear appropriate protective eyeglasses or chemical safety goggles as described in OSHA eye and face regulation in 29 CFR 1910.133 or European Standard EN166.

Section 9: Physical and Chemical Properties

General Information

Chemical Formula: $\text{Ca}_5\text{OH}(\text{PO}_4)_3$

Form: Powder

Color: White

Odor: Odorless

Important health, safety and environmental information

pH: 7.3 (as a 1% solution)

Density 3.14

Solubility in Water: 0.002% practically insoluble

Melting Point 1670 °C

NOTE: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

Section 10: Stability and Reactivity Data

Product is stable under normal conditions of storage and handling. Store in a cool, dry place to maintain product performance.

Conditions to avoid

Dust generation.

Materials to avoid

Oxidizing agents.

Hazardous decomposition

Phosphine, oxides of phosphorus, calcium oxides.

Section 11: Toxicological Information

Laboratory data

Data from ICL Performance Products LP single-dose (acute) animal studies with this material are given below:

Oral - rat LD50: 10,000 mg/kg; practically nontoxic

Dermal - rabbit LD50: >7,940 mg/kg; practically nontoxic

Eye Irritation - rabbit: 3.7/110.0; slightly irritating

Skin Irritation - rabbit: 0.0/8.0 (24-hr. exp.); nonirritating

Section 12: Ecological Information

Environmental toxicity

ICL Performance Products LP has not conducted any environmental toxicity studies with this material. No algal toxicity data was available for this material.

Environmental fate

Inorganic compounds in contact with the soil, sub-surface or surface waters may be taken up by plants and utilized as essential nutrients. Phosphates may also form precipitates. The term biodegradability, as such, is not applicable to inorganic compounds.

Section 13: Disposal Considerations

European waste catalog number

Unknown

Disposal Considerations

This material when discarded is not a hazardous waste as that term is defined by the Resource, Conservation and Recovery Act (RCRA), 40 CFR 261. Dry material may be landfilled or recycled in accordance with local, state and federal regulations. Consult your attorney or appropriate regulatory officials for information on such disposal.

Section 14: Transport Information

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

Road/Rail, Sea and Air

IMDG/UN Not hazardous for transportation

ICAO/IATA passenger aircraft Not hazardous for transportation

RID/ADR Unknown

Canadian TDG Not hazardous for transportation

US DOT Not hazardous for transportation

Section 15: Other Regulatory Information

EC Label

Hazard symbol: None

R36/37/38 Irritating to eyes, respiratory system and skin

S24/25 Avoid contact with skin/eyes

Chemical Inventory

USA TSCA: Listed

Canada DSL: Listed

EC: Listed

Japan Listed

Australia Listed

Korea Listed

Philippines Listed

China Listed

Other information

WHMIS Classification Not Controlled

SARA Hazard Notification

Hazard Categories Under Title III Rules (40 CFR 370): Not applicable

Section 302 Extremely Hazardous Substances: Not Applicable

Section 313 Toxic Chemical(s): Not Applicable

CERCLA Reportable Quantity: Not Applicable

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation and the MSDS contain all the information required by the Canadian Controlled Products Regulation.

Section 16: Other Information

MSDS Creation Date: 6/16/2000

Revision # 4 Date: 3/15/2007

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