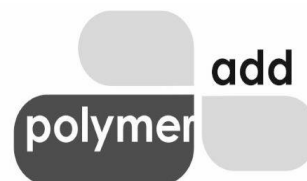


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MATERIAL SAFETY DATA SHEET

TRICALCIUM PHOSPHATE MICRONISED

1. Identification of the Substance and Company

Item	Information
Product Name	Tricalcium Phosphate Micronised
Chemical Name	Tricalcium Phosphate
Synonyms	Calcium Phosphate Tribasic; Tribasic Calcium Phosphate; TCP
CAS Number	7758-87-4
EC Number	231-840-8
Molecular Formula	$\text{Ca}_3(\text{PO}_4)_2$
Molecular Weight	310.18 g/mol
Recommended Use	Micronised functional additive, mineral filler, anti-caking agent and industrial raw material
Supplier	Polymer Add (Thailand) Co., Ltd.
Emergency Telephone	[Insert telephone number]

2. Hazard Identification

GHS Classification

Tricalcium phosphate is generally **not classified as hazardous** under the Globally Harmonized System.

Hazard	Classification
Physical Hazards	Not classified
Health Hazards	Not classified
Environmental Hazards	Not classified
Combustible Dust	Not considered combustible; however, airborne dust should be controlled

Signal Word: None required

Hazard Pictogram: None required

Other Hazards

- Micronised powder may cause mechanical irritation of the eyes, skin and respiratory tract.
- Prolonged or excessive inhalation of airborne dust should be avoided.
- Fine powder may reduce visibility and create slippery surfaces when spilled.

Precautionary Statements

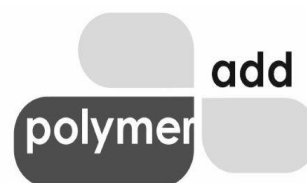
- Avoid breathing dust.
- Use adequate ventilation.
- Wear suitable eye protection and respiratory protection when dust is generated.

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- Wash hands thoroughly after handling.
- Prevent uncontrolled release into drains and waterways.

3. Composition/Information on Ingredients

Component	CAS Number	EC Number	Concentration
Tricalcium Phosphate	7758-87-4	231-840-8	According to product specification

The micronisation process changes the particle size but does not change the chemical identity of the substance.

4. First-Aid Measures

Inhalation:

Move the affected person to fresh air. Keep the person comfortable and at rest. Obtain medical attention if coughing, irritation or breathing discomfort continues.

Skin Contact:

Wash the affected area thoroughly with soap and water. Remove contaminated clothing. Seek medical advice if irritation persists.

Eye Contact:

Rinse cautiously with clean water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Obtain medical attention if irritation persists.

Ingestion:

Rinse mouth with water. Give water to drink if the person is conscious. Do not induce vomiting unless directed by medical personnel. Seek medical attention if discomfort occurs or if a large quantity is ingested.

Most Important Symptoms:

Mechanical irritation, redness or watering of the eyes, coughing and temporary irritation of the nose or throat.

5. Firefighting Measures

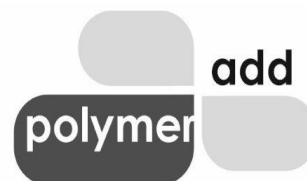
Item	Information
Suitable Extinguishing Media	Use extinguishing media appropriate for the surrounding fire
Unsuitable Extinguishing Media	None specifically known
Flammability	Non-flammable and non-combustible
Specific Hazards	Product itself does not burn
Hazardous Decomposition Products	Phosphorus oxides and calcium oxides may be produced under extreme fire conditions

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Protective Equipment

Firefighters should wear protective equipment appropriate for the surrounding fire and self-contained breathing apparatus where necessary

Avoid generating airborne dust during firefighting and clean-up operations.

6. Accidental Release Measures

Personal Precautions

- Avoid breathing dust.
- Avoid contact with eyes.
- Ensure adequate ventilation.
- Wear safety goggles, gloves and suitable particulate respiratory protection.
- Avoid walking through spilled material because the surface may become slippery.

Environmental Precautions

Prevent large quantities from entering drains, waterways or soil.

Cleaning Method

Collect using an industrial vacuum cleaner fitted with a suitable particulate filter. Alternatively, carefully sweep or shovel the material into a labelled container while avoiding dust formation. Do not use compressed air for cleaning.

7. Handling and Storage

Handling

- Avoid generating and breathing dust.
- Use local exhaust ventilation at filling, transfer and mixing points.
- Avoid contact with eyes and prolonged contact with skin.
- Keep containers closed when not in use.
- Maintain good housekeeping to prevent dust accumulation.
- Do not eat, drink or smoke in handling areas.

Storage

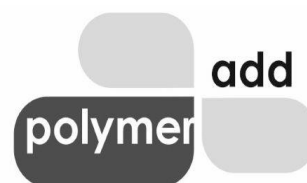
- Store in tightly closed containers.
- Keep in a cool, dry and well-ventilated location.

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- Protect from moisture and contamination.
- Keep away from strong acids.
- Store separately from food products unless the supplied grade is specifically certified for food use.

8. Exposure Controls/Personal Protection

Control	Recommendation
Occupational Exposure Limit	No specific substance limit established; follow applicable local limits for inhalable and respirable dust
Engineering Controls	Enclosed transfer systems and local exhaust ventilation
Respiratory Protection	P2, N95 or equivalent particulate respirator where dust exposure cannot be adequately controlled
Eye Protection	Safety glasses with side shields or chemical safety goggles
Hand Protection	Suitable protective gloves
Skin Protection	Long-sleeved protective clothing
Hygiene Measures	Wash hands after handling and before eating, drinking or smoking

9. Physical and Chemical Properties

Property	Typical Information
Appearance	White to off-white micronised powder
Odour	Odourless
Particle Size	According to the applicable product specification
pH	Approximately 6.0–8.0 in an aqueous suspension; grade-dependent
Melting Point	Approximately 1,670°C
Boiling Point	Not applicable
Flash Point	Not applicable
Flammability	Non-flammable
Vapour Pressure	Negligible
Relative Density	Approximately 3.1–3.2
Bulk Density	Product and particle-size dependent
Water Solubility	Practically insoluble in water
Solubility in Other Media	Soluble in dilute mineral acids
Explosive Properties	Not explosive
Oxidising Properties	Not classified as oxidising
Decomposition Temperature	No significant decomposition under normal processing and storage conditions

10. Stability and Reactivity

Reactivity:

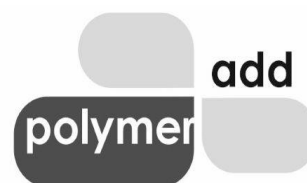
Generally non-reactive under normal conditions. Reacts with strong acids.

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Chemical Stability:

Stable under recommended handling and storage conditions.

Possibility of Hazardous Reactions:

Hazardous polymerisation will not occur.

Conditions to Avoid:

Moisture, contamination, excessive dust generation and contact with incompatible materials.

Incompatible Materials:

Strong acids.

Hazardous Decomposition Products:

Calcium oxides and phosphorus oxides may form under extreme temperatures or fire conditions.

11. Toxicological Information

Exposure Route	Information
Acute Oral Toxicity	Expected to have low acute toxicity
Inhalation	Airborne dust may cause mechanical irritation of the respiratory tract
Skin Contact	Prolonged contact may cause mild mechanical irritation or dryness
Eye Contact	Dust may cause mechanical irritation, redness and watering
Skin Sensitisation	Not expected to cause sensitisation
Germ-Cell Mutagenicity	Not classified based on available information
Carcinogenicity	Not classified as carcinogenic by major regulatory agencies
Reproductive Toxicity	Not classified based on available information
Aspiration Hazard	Not applicable to a solid
Chronic Effects	Repeated excessive exposure to high dust concentrations may cause respiratory discomfort

12. Ecological Information

Ecotoxicity:

Not expected to be hazardous to aquatic organisms under normal conditions of use.

Persistence and Degradability:

Not applicable to an inorganic substance.

Bioaccumulative Potential:

Bioaccumulation is not expected.

Mobility in Soil:

Low mobility because of its very limited water solubility.

Other Adverse Effects:

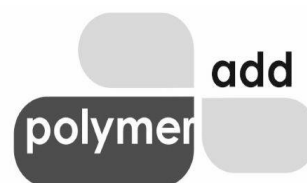
Large releases may increase suspended solids and disturb the mineral balance of water or soil.

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13. Disposal Considerations

Dispose of unused material and contaminated packaging in accordance with applicable local, national and international regulations.

Do not discharge large quantities into drains or waterways. Where uncontaminated and permitted, the material may be recovered or reused. Empty packaging should be completely emptied before recycling or disposal.

14. Transport Information

Regulation	Classification
UN Number	Not assigned
UN Proper Shipping Name	Not regulated as dangerous goods
ADR/RID	Not regulated
IMDG	Not regulated
IATA/ICAO	Not regulated
Transport Hazard Class	Not applicable
Packing Group	Not applicable
Marine Pollutant	No

Protect containers from moisture, contamination and physical damage during transportation.

15. Regulatory Information

Tricalcium phosphate is listed under:

- **CAS Number:** 7758-87-4
- **EC Number:** 231-840-8

The substance is generally not classified as hazardous under the Globally Harmonized System.

Tricalcium phosphate may be used as a food additive under the designation **E341(iii)**; however, food-grade, pharmaceutical-grade, feed-grade or food-contact compliance must be confirmed separately against the purity, heavy-metal limits, manufacturing controls and regulatory requirements applicable to the supplied grade.

Micronisation does not change the chemical classification but increases the potential for airborne dust exposure.

16. Other Information

Product: Tricalcium Phosphate Micronised

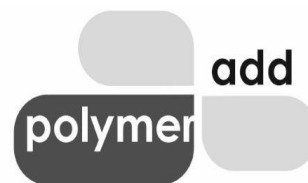
CAS Number: 7758-87-4

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Revision Date: [Insert date]

Version: 1.0

The information provided is based on available safety information for tricalcium phosphate. Actual purity, particle size, moisture, pH, bulk density and other product-specific values should be confirmed using the applicable Product Specification and Certificate of Analysis.

This document should be reviewed against the raw-material supplier's current SDS and the regulations of the country where the product will be manufactured, supplied or used before formal issue.

Reference information: [PubChem – Tricalcium Phosphate](#), [Loba Chemie – Tricalcium Phosphate](#).

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