

Material Safety Data Sheet

Monocalcium phosphate

Section 1 - Product Identification

Synonyms : Monocalcium Phosphate, Monocalcium Diphosphate
Molecular Weight : 310,18 g/mol
Chemical Formula : $\text{CaH}_4\text{P}_2\text{O}_8$
Company Identification : Tradeasia International Pte. Limited
Address : 133 Cecil Street # 12-03 Keck Seng Tower, Singapore
Tel: +65-6227 6365
Fax: +65-6225 6286
Email: contact@chemtradeasia.com

Uses advised against: Animal Feed ingredient. This product is not intended for direct consumption, but as part of a formulation.

Section 3 – Hazards Identification

2.1 Classification of the substance or mixture

GHS Classification: Skin Irritant Category 2 Hazard Statement H315
Eye Irritant Category 2B Hazard Statement H320
STOT SE Category 3 Hazard Statement H335

Signal Word: WARNING Hazard Statement(s)

H315: Causes skin irritation
H320: Causes eye irritation
H335: May cause respiratory irritation

2.2 Label elements

Prevention:

P264: Wash hands thoroughly after handling.
P280: Wear protective gloves
P261: Avoid breathing dust
P271: Use only outdoors or in a well-ventilated area

Response:

P302+ P352 IF ON SKIN: Wash with plenty of water.
P321 Specific Treatment, see supplemental first aid information.
P332+ P313 If skin irritation occurs: Get medical advice/attention.
P362+ P364 Take off contaminated clothing and wash it before reused.
P305+P351+ P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+ P313 If eye irritation persists: Get medical advice/attention.
P304+ P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Storage:

Not applicable Not applicable

Disposal:

P501 Disposal of content/containers to be in accordance with local/regional/national regulations.

Section 3 – Composition/information on ingredients

Chemical Name	EC No/CAS No	Purity, %	GHS-US classification
Monocalcium Phosphate	7758-23-8	>20	Skin Irritant Category 2 Eye Irritant Category 2B STOT SE 3 (Lungs, Inhalation)

Section 4 – First-Aid Measures

General Advice

If symptoms persist, call a physician.

Eye Contact

Move victim away from exposure and into fresh air. Flush eyes with plenty of clean water for at least 15 minutes. If symptoms persist, seek medical attention.

Skin Contact

Wash contaminated area thoroughly with mild soap and water. If chemical or solution soaks through clothing, remove clothing and wash contaminated skin. If irritation develops and persists after washing, seek medical attention.

Inhalation

If respiratory symptoms develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek medical attention.

Ingestion

If large amounts are swallowed, seek emergency medical attention. If possible, do not leave victim unattended and observe closely for adequacy of breathing.

Section 5 – Fire Fighting Measures

5.1. Suitable Extinguishing media

Use extinguishing agent suitable for type of surrounding fire. Avoid excessive water to minimize runoff.

5.2. Protection of Firefighters

Positive pressure, self-contained breathing apparatus is required for all firefighting activities involving hazardous materials. Full structural firefighting (bunker) gear is the minimum acceptable attire. The need for proximity, entry, flashover and/or special chemical protective clothing (see Section 8) needs to be determined for each incident by a competent firefighting safety professional. Water used for fire suppression and cooling may become contaminated. Discharge to sewer system(s) or the environment may be restricted, requiring containment and proper disposal of water.

Section 6 – Accidental Release Measures

6.1 Response Techniques

Stay upwind and away from spill (dust hazard). Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8). Prevent spilled material from entering sewers, storm drains, other unauthorized treatment drainage systems, and natural waterways. Notify appropriate federal, state, and local agencies as may be required (see Section 15). Minimize dust generation. Sweep up and package appropriately for disposal.

Section 7 – Handling and Storage

7.1. Precautions for safe Handling

The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits (see Sections 3 and 8). Wash thoroughly after handling. Wash contaminated clothing or shoes. Use good personal hygiene practices

7.2 Conditions for safe storage, including any incompatibilities

Keep container(s) tightly closed. Use and store this material in dry, well ventilated areas. Store only in approved containers. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage.

Section 8 – Exposure Controls/Personal Protection

8.1 Engineering Controls

If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional ventilation or exhaust systems may be required.

Personal protective equipment

Eye/face protection

Approved eye protection to safeguard against potential eye contact, irritation, or injury is recommended.

Skin protection

The use of cloth or leather work gloves is advised to prevent skin contact; possible irritation and absorption (see glove manufacturing literature for information on permeability)

Respiratory protection

A NIOSH approved air purifying respirator with a type 95 (R or P) particulate filter may be used under conditions where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited (see manufacturer's respirator selection guide). Use a positive pressure air supplied respirator if there is potential for uncontrolled release, exposure levels are not known or any other circumstances where air purifying respirators may not provide adequate protection. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed if workplace conditions warrant a respirator.

Other

A source of clean water should be available in the work area for flushing eyes and skin. Impervious clothing should be worn as needed.

General Hygiene Considerations

Wash thoroughly after handling Wash contaminated clothing Use adequate ventilation Use good personal hygiene practice

Control of environmental exposure

OSHA Permissible Exposure Limits (PEL): Particulates Not Otherwise Regulated: 5 mg/m³ TWA (respirable); 15 mg/m³ TWA (total)

ACGIH Threshold Limit Value (TLV): Particulates Not Otherwise Specified: 3 mg/m³ TWA (respirable); 10 mg/m³ TWA (inhalable)

Section 9 – Physical and Chemical Properties

Note: Unless otherwise stated, values in this section are determined at 20°C (68°F) and 760 mm Hg (1 atm).

9.1. Information on basic physical and chemical properties

a) Appearance	Light gray granules
b) Odour	Slight
c) Odour Threshold	No data available
d) Physical state	Solid granules
e) pH	3.6 (in a 1% solution)
f) Melting point/freezing point	Not applicable
g) Initial boiling point and boiling range	Not applicable
h) Flash point	Not applicable
i) Evaporation rate	Not applicable
j) Flammability (solid, gas)	Not applicable
k) Upper/lower flammability or explosive limits	Not applicable
l) Vapour pressure	Not applicable
m) Vapour density	Not applicable
n) Specific Gravity or Relative Density	Not applicable
o) Bulk Density	Loose 57–59 lbs/ft ³ (913–945 kg/m ³)
p) Solubility in Water	60-70% soluble in a 1% solution
q) Partition coefficient	Not applicable
r) Auto-Ignition Temperature	Not applicable
s) Decomposition Temperature	Not applicable
t) Viscosity	Not applicable
u) Volatility	Not applicable

Section 10 – Stability and Reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under normal conditions of storage and handling; decomposes at approx. 200° C.

10.3 Conditions to avoid

No data available

10.4 Incompatible materials

No data available

10.5 Hazardous decomposition products

Combustion can yield phosphorus oxides when heated at very high temperatures.

10.6 Corrosiveness

No data available

10.7 Hazardous Polymerization

Will not occur.

Section 11 – Toxicological Information

11.1. Information on toxicological effects

Acute toxicity

See Section 15 under Food and Drug Administration (FDA) notes LD50 (rat, oral) = 17500 mg/kg LD50 (mouse, oral) = 15250 mg/kg

No data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

Eyes - rabbit

Result: No eye irritation

(OECD Test Guideline 405)

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

no data available

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigate

Section 12 – Ecological Information

12.1 Toxicity

no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6 Other adverse effects

no data available

Section 13 – Disposal Considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

Section 14 – Transport Information

14.1 UN number

ADR/RID: - IMDG: - IATA: -

14.2 UN proper shipping name

ADR/RID: Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods

14.3 Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

14.4 Packaging group

ADR/RID: - IMDG: - IATA: -

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user

no data available

Section 15 – Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

no data available

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

16 : Additional Information

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.