

大 连 星 镁 矿 业 有 限 公 司

STAR GRACE MINING CO., LTD.

Add: 29-67, No. 929, Xinan Road, Shahekou District, Dalian, Liaoning, China

MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY INFORMATION

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Product Name: MONO CALCIUM PHOSPHATE

SYNONYMS: "Dicalcium Phosphate; Calcium Phosphate; Mono Dicalcium Phosphate"

PRODUCT USE: Used as a phosphorus and calcium source in animal feeds.

SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
Mono Calcium Phosphate	7758-23-8	100

Chemical Formula: $\text{Ca}(\text{H}_2\text{PO}_4)_2 \cdot \text{H}_2\text{O}$

SECTION 3 - HAZARDS IDENTIFICATION

RISK:

Irritating to eyes, respiratory system and skin.

May cause long-term adverse effects in the aquatic environment.

SAFETY:

Do not breathe dust.

Avoid contact with skin.

Wear eye/ face protection.

To clean the floor and objects contaminated by this material, use water and detergent.

In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.

If swallowed, IMMEDIATELY contact Doctor or Poisons Information Centre

SECTION 4 - FIRST AID MEASURES

SWALLOWED:

- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice.

EYE:

- If this product comes in contact with the eyes:
- Wash out immediately with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.

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- Seek medical attention without delay; if pain persists or recurs seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN: If skin contact occurs:

- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

INHALED:

- If dust is inhaled, remove from contaminated area.
- Encourage patient to blow nose to ensure clear passage of breathing.
- If irritation or discomfort persists seek medical attention.

NOTES TO PHYSICIAN:

Treat symptomatically

SECTION 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

FIRE FIGHTING:

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves for fire only.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area
- DO NOT approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.
- Equipment should be thoroughly decontaminated after use. FIRE/EXPLOSION HAZARD:
- Non combustible.
- Not considered a significant fire risk, however containers may burn. Decomposition may produce toxic fumes of:

phosphorus oxides (PO_x).

FIRE INCOMPATIBILITY:

- None known.

HAZCHEM: None

Personal Protective Equipment:

Gloves, boots (chemical resistant).

SECTION 6-ACCIDENTAL RELEASE MEASURES

MINOR SPILLS:

- Clean up all spills immediately.
- Avoid contact with skin and eyes.
- Wear impervious gloves and safety glasses.
- Use dry clean up procedures and avoid generating dust.
- Vacuum up (consider explosion-proof machines designed to be grounded during storage)

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and use).

- Do NOT use air hoses for cleaning
- Place spilled material in clean, dry, sealable, labeled container.

MAJOR SPILLS:

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Control personal contact by using protective equipment and dust respirator.
- Prevent spillage from entering drains, sewers or water courses.
- Recover product wherever possible. Avoid generating dust.
- Sweep / shovel up.
- If required, wet with water to prevent dusting.
- Put residues in labeled plastic bags or other containers for disposal.
- Wash area down with large quantity of water and prevent runoff into drains.
- If contamination of drains or waterways occurs, advise emergency services

SECTION 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING:

- Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

SUITABLE CONTAINER:

- Polyethylene or polypropylene container.
- Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY:

- Phosphates are incompatible with oxidising and reducing agents.
- Phosphates are susceptible to formation of highly toxic and flammable phosphine gas in the presence of strong reducing agents such as hydrides.
- Partial oxidation of phosphates by oxidizing agents may result in the release of toxic phosphorus oxides.

STORAGE REQUIREMENTS:

- Keep dry.
- Store under cover.

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- Protect containers against physical damage.
- Observe manufacturer's storing and handling recommendations.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation Protection: Adequate ventilation.

Respiratory Protection: Dust masks in a dusty environment.

Protective Clothing: Normal work clothing.

Eye Protection: Safety glasses with side shields or goggles in a dusty environment. Other: Eyewash fountain

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:

White and grey particle; partly soluble in water.

PHYSICAL PROPERTIES:

State	Divided Solid	Molecular Weight	Not Applicable
Melting Range (°C)	Not Available	Viscosity	Not Applicable
Boiling Range (°C)	Not Applicable	Solubility in water (g/L)	Partly Miscible
Flash Point (°C)	Not Applicable	pH (1% solution)	3.5- 4.5
Decomposition Temp (°C)	Not Available	pH (as supplied)	Not Applicable
Autoignition Temp (°C)	Not Applicable	Vapour Pressure (kPa)	Not Applicable
Upper Explosive Limit (%)	Not Applicable	Specific Gravity (water=1)	2.3
Lower Explosive Limit (%)	Not Applicable	Relative Vapour Density (air=1)	Not Applicable
Volatile Component (%vol)	2	Evaporation Rate	Not Applicable

SECTION 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY:

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

For incompatible materials - refer to Section 7 - Handling and Storage.

SECTION 11 - TOXICOLOGICAL INFORMATION

None listed.

SECTION 12 - ECOLOGICAL INFORMATION

None listed.

SECTION 13 - DISPOSAL CONSIDERATIONS

- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- Bury residue in an authorized landfill.
- Recycle containers if possible, or dispose of in an authorised landfill.

SECTION 14 – TRANSPORTATION INFORMATION

HAZCHEM: None

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: UN, IATA, IMDG

SECTION 15 - REGULATORY INFORMATION

POISONS SCHEDULE: None REGULATIONS:

Regulations for ingredients:

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calcium phosphate , monobasic (CAS: 7758-23-8) is found on the following regulatory lists; International

Council of Chemical Associations (ICCA) - High Production Volume List The Inventory of the existing chemical

substances in China

calcium hydrogen orthophosphate dihydrate (CAS: 7789-77-7) is found on the following regulatory lists;

The Inventory of the existing chemical substances in China

SECTION 16 - OTHER INFORMATION

Flash Point (Test Method): Non-flammable

Flammable Limits (% BY VOLUME): LOWER: N/A UPPER: N/A Autoignition Temperature: Not applicable

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