



Material Safety Data Sheet (MSDS)

Product Name: Chalk BP Grade (Calcium Carbonate Oystershell)

MSDS Generate Date: 20-05-2017

Revision Date: 30-12-2024

Supplier:

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1. Identification of the Substance and Company

Product Name: Chalk BP Grade (Calcium Carbonate Oystershell)

Chemical Name: Calcium Carbonate

Synonyms: Oyster Shell Calcium Carbonate, Chalk BP, Natural Calcium Carbonate, Oyster Shell Powder

CAS Number: 471-34-1

Molecular Formula: CaCO_3

Molecular Weight: 100.09 g/mol

Grade: British Pharmacopoeia (BP)

Recommended Use:

Pharmaceutical excipient, calcium supplement, nutraceutical formulations, food applications, and mineral fortification.

2. Hazard Identification

GHS Classification: The product is **not classified as hazardous** according to the Globally Harmonized System (GHS).

Potential Health Effects:

Inhalation: Dust may cause temporary irritation of the nose, throat, and respiratory tract.

Skin Contact: Prolonged or repeated contact may cause mild mechanical irritation or skin dryness.

Eye Contact: Dust may cause temporary redness, watering, and irritation.

Ingestion: Low toxicity under normal conditions of use. Excessive ingestion may cause mild gastrointestinal discomfort.

Environmental Hazards: No significant environmental hazards are expected.

Precautionary Statements:

- Avoid breathing dust.
- Avoid excessive dust generation.
- Wear suitable personal protective equipment where necessary.
- Wash hands thoroughly after handling.

3. Composition / Information on Ingredients

Chemical Name: Calcium Carbonate

Common Name: Chalk BP Grade (Calcium Carbonate Oystershell)

CAS Number: 471-34-1

Molecular Formula: CaCO_3

Source: Purified natural oyster shells

Grade: British Pharmacopoeia (BP)

Purity: Complies with current British Pharmacopoeia requirements.

The product consists primarily of highly purified calcium carbonate obtained from cleaned, sterilized, and processed oyster shells. Trace naturally occurring mineral constituents are maintained within British Pharmacopoeia specification limits.

4. First Aid Measures

Inhalation: Move the affected person to fresh air. Obtain medical attention if irritation persists.

Skin Contact: Wash thoroughly with soap and water.

Eye Contact: Immediately flush eyes with plenty of clean water for at least 15 minutes. Remove contact lenses if present. Seek medical attention if irritation continues.

Ingestion: Rinse mouth with water. Drink plenty of water. Seek medical advice if discomfort develops.

Most Important Symptoms: Mild eye irritation, Respiratory irritation due to dust, Temporary skin dryness.

5. Fire Fighting Measures

Suitable Extinguishing Media: Use extinguishing media appropriate for the surrounding fire.

Unsuitable Extinguishing Media: None known.

Fire and Explosion Hazards: The product is non-flammable and does not support combustion.

Hazardous Decomposition Products: Carbon dioxide may be released when heated above the decomposition temperature (approximately 825°C).

Protective Equipment: Wear self-contained breathing apparatus and protective clothing when fighting surrounding fires.

6. Accidental Release Measures

Personal Precautions:

- Avoid generating airborne dust.
- Ensure adequate ventilation.
- Wear suitable respiratory protection if necessary.

Environmental Precautions: Prevent excessive quantities from entering drains or natural waterways.

Cleanup Procedures: Sweep or vacuum carefully to minimize dust formation. Collect material into suitable containers for reuse or disposal.

7. Handling and Storage

Handling

- Avoid excessive dust generation.
- Avoid inhalation of dust.
- Use appropriate ventilation.
- Follow good pharmaceutical manufacturing and hygiene practices.

Storage

Store in tightly sealed containers in a cool, dry, clean, and well-ventilated place.

Protect from moisture, contamination, and direct sunlight.

8. Exposure Controls / Personal Protection

- **Engineering Controls:** Provide adequate local exhaust ventilation where dust may be generated.

Personal Protective Equipment:

- **Respiratory Protection:** Approved dust mask or respirator where necessary.
- **Eye Protection:** Safety goggles or safety glasses.
- **Hand Protection:** Protective gloves.
- **Skin Protection:** Suitable protective clothing.

9. Physical and Chemical Properties

Appearance: Fine white to off-white powder

Odor: Odorless

Physical State: Solid powder

pH (10% Suspension): Approximately 8.5–10.5

Melting Point: Decomposes above approximately 825°C

Boiling Point: Not applicable

Bulk Density: Varies according to particle size

Specific Gravity: Approximately 2.70

Solubility: Practically insoluble in water; soluble in dilute acids with evolution of carbon dioxide

Flash Point: Not applicable

Auto-Ignition Temperature: Not applicable

Explosive Properties: None

Oxidizing Properties: None

Vapor Pressure: Not applicable

Vapor Density: Not applicable

10. Stability and Reactivity

Reactivity: Stable under recommended storage conditions.

Chemical Stability: Stable under normal handling and storage conditions.

Conditions to Avoid: Excessive moisture, Strong acids, Excessive heat.

Incompatible Materials: Strong acids and strong oxidizing agents.

Hazardous Decomposition Products: Carbon dioxide may be generated during thermal decomposition or reaction with acids.

11. Toxicological Information

Acute Toxicity: Low acute toxicity.

Skin Irritation: May cause slight mechanical irritation.

Eye Irritation: Dust may cause temporary irritation.

Respiratory Effects: Dust may irritate the upper respiratory tract.

Carcinogenicity: Not classified as carcinogenic.

Mutagenicity: Not known to be mutagenic.

Reproductive Toxicity: No known adverse reproductive effects.

12. Ecological Information

Ecotoxicity: No significant ecological toxicity is expected.

Persistence and Degradability: Naturally occurring inorganic mineral material.

Bioaccumulative Potential: Not expected to bioaccumulate.

Mobility: Low mobility in soil.

Environmental Impact: No significant adverse environmental effects under normal conditions of use.

13. Disposal Considerations

Dispose of unused product and contaminated packaging in accordance with applicable local, state, and national regulations.

Avoid unnecessary release into drains, sewers, or natural water bodies.

14. Transport Information

Chalk BP Grade (Calcium Carbonate Oystershell) is not classified as dangerous goods under national and international transport regulations. The product is a stable, non-flammable, non-toxic mineral material intended for pharmaceutical applications. When packaged correctly, it presents no significant hazards during transportation.

UN Number: Not regulated.

UN Proper Shipping Name: Not regulated.

Transport Hazard Class: Not regulated.

Packing Group: Not regulated.

Environmental Hazard: Not classified as environmentally hazardous.

Marine Pollutant: No.

Road Transport (ADR/RID): The product is not regulated as dangerous goods for road or rail transportation. It should be transported in sealed bags, fiber drums, or HDPE containers that protect the product from moisture, contamination, and physical damage. Secure packaging properly during transportation.

Sea Transport (IMDG): The product is not classified as dangerous goods under the International Maritime Dangerous Goods (IMDG) Code. It is not considered a marine pollutant and requires no special hazard labels or segregation. Containers should remain dry, clean, and tightly closed throughout shipment.

Air Transport (IATA): The product is not regulated as dangerous goods under International Air Transport Association (IATA) regulations. Standard commercial packaging is suitable. Care should be taken to prevent packaging damage and minimize dust generation during handling.

Special Transport Precautions:

- Transport only in clean, dry, tightly sealed containers.
- Protect from rain, moisture, and excessive humidity.
- Avoid physical damage to containers during loading and unloading.
- Prevent dust formation while handling.
- Keep away from strong acids and incompatible materials.
- Secure cargo adequately to prevent shifting during transit.
- Maintain good housekeeping throughout transportation.

Transport in Bulk According to MARPOL Annex II and IBC Code: Not applicable.

Emergency Transport Information: In the event of accidental spillage during transportation, isolate the affected area if necessary, avoid generating dust, and collect the spilled material by sweeping or vacuuming into suitable containers. Prevent material from entering drains and waterways. Dispose of recovered material according to applicable local regulations. Personnel performing cleanup should wear appropriate personal protective equipment.

15. Regulatory Information

- This product complies with the applicable requirements of the British Pharmacopoeia (BP) for pharmaceutical-grade calcium carbonate, where specified.
 - The product is not classified as hazardous under the Globally Harmonized System (GHS).
 - No special hazard labeling is required under normal conditions of handling and use
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16. Other Information

The information contained in this Material Safety Data Sheet is based on current scientific knowledge and industrial experience and is intended to provide guidance for the safe handling, storage, transportation, and disposal of the product. It does not constitute a warranty of product characteristics or suitability for any particular application.

- **MSDS Generate Date:** 20-05-2017
- **Revision Date:** 30-12-2024
- **Website:** www.rawpharmabiz.com
- MSDS are based on the manufacturer's provided information.