

Material Safety Data Sheet (MSDS)

Product Name: Colloidal Silicon Dioxide BP Grade

MSDS Generate Date: 20-05-2017

Revision Date: 30-12-2024

Supplier:

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1. Identification of the Substance/Preparation and of the Company

Product Name: Colloidal Silicon Dioxide BP Grade

Chemical Name: Silicon Dioxide

Synonyms: Colloidal Silica, Fumed Silica, Synthetic Amorphous Silica

CAS Number: 7631-86-9

Molecular Formula: SiO₂

Molecular Weight: 60.08 g/mol

Grade: BP (British Pharmacopoeia)

2. Hazards Identification

GHS Classification: Not classified as hazardous according to GHS criteria.

Potential Health Effects

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

Skin Contact: May cause mild mechanical irritation.

Eye Contact: Dust particles may cause redness, discomfort, and irritation.

Ingestion: Low toxicity; large quantities may cause gastrointestinal discomfort.

Environmental Hazards: Not expected to present significant environmental hazards.

Hazard Statements: Not classified as hazardous.

Precautionary Statements

- Avoid breathing dust.
- Use adequate ventilation.
- Wear appropriate personal protective equipment.
- Wash hands thoroughly after handling.

3. Composition / Information on Ingredients

Chemical Name: Silicon Dioxide (Amorphous)

Synonyms: Colloidal Silica, Fumed Silica, Synthetic Amorphous Silica

CAS Number: 7631-86-9

Molecular Formula: SiO₂

Molecular Weight: 60.08 g/mol

Purity: Not less than 99.0%

Grade: British Pharmacopoeia (BP) Grade .

4. First Aid Measures

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

Skin Contact: Wash with soap and water. Remove contaminated clothing.

Eye Contact: Flush eyes with plenty of water for at least 15 minutes. Obtain medical attention if irritation continues.

Ingestion: Rinse mouth thoroughly with water. Drink water. Seek medical advice if discomfort occurs.

Most Important Symptoms

- Eye irritation
- Respiratory irritation
- Dry skin due to prolonged exposure

5. Fire And Explosion Data

Suitable Extinguishing Media

- Water spray
- Dry chemical powder
- Foam
- Carbon dioxide (CO₂)

Unsuitable Extinguishing Media: None known.

Special Hazards: Product is non-combustible and does not support combustion.

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

6. Accidental Release Measures

Personal Precautions

- Avoid dust generation.
- Wear suitable respiratory protection if dust levels are high.

Environmental Precautions

Prevent large quantities from entering drains or waterways.

Cleanup Methods

- Sweep or vacuum carefully.
- Collect material in suitable containers for disposal.
- Avoid creating airborne dust.

7. Handling and Storage

- **Precautions:** Do not ingest. Do not breathe dust. Avoid contact with eyes. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, acids.
- **Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area. Hygroscopic. Storage temperature not more than 55°C.

8. Exposure Controls / Personal Protection

Exposure Limits

ACGIH TLV (Respirable Fraction): 10 mg/m³ (Total Dust)

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

Personal Protective Equipment

Respiratory Protection: Dust mask or approved respirator.

Eye Protection: Safety goggles.

Hand Protection: Protective gloves.

Skin Protection: Protective clothing as required.

9. Physical and Chemical Properties

- **Appearance:** Fine white powder
- **Odor:** Odorless
- **Physical State:** Solid powder
- **pH (4% aqueous suspension):** 3.5 – 5.5
- **Melting Point:** Approximately 1710°C
- **Boiling Point:** Not applicable
- **Bulk Density:** Typically 40–60 g/L
- **Specific Gravity:** Approximately 2.2
- **Solubility:** Insoluble in water; soluble in hydrofluoric acid and hot concentrated alkali solutions
- **Flash Point:** Not applicable
- **Auto-Ignition Temperature:** Not applicable
- **Explosive Properties:** None
- **Oxidizing Properties:** None
- **Vapor Pressure:** Not applicable
- **Vapor Density:** Not applicable
- **Particle Characteristics:** Fine micronized powder

10. Stability and Reactivity

Reactivity: Stable under recommended storage conditions.

Chemical Stability: Stable.

Conditions to Avoid:

- Excessive moisture
- Dust generation

Incompatible Materials: Strong hydrofluoric acid.

Hazardous Decomposition Products: None under normal conditions.

11. Toxicological Information

- **Acute Toxicity:** Low acute toxicity.
- **Skin Irritation:** May cause mild mechanical irritation.
- **Eye Irritation:** May cause temporary irritation.
- **Respiratory Effects:** Dust inhalation may irritate the respiratory tract.
- **Carcinogenicity:** Not classified as carcinogenic when handled according to recommended practices.
- **Mutagenicity:** No known adverse effects.
- **Reproductive Toxicity:** No known adverse effects.

12. Ecological Information

- **Ecotoxicity:** No significant ecological toxicity known.
- **Persistence and Degradability:** Inorganic material; not biodegradable.
- **Bioaccumulative Potential:** Not expected to bioaccumulate.
- **Mobility in Soil:** Low mobility.
- **Environmental Impact:** No significant environmental hazards anticipated.

13. Disposal Considerations

Dispose of material in accordance with local, regional, and national regulations.

Recommended Disposal Method

- Landfill according to regulatory requirements.
- Avoid release into waterways.

Contaminated Packaging

Dispose of packaging according to applicable regulations.

14. Transport Information (DETAILED)

- This product is **not classified as dangerous goods** under international transportation regulations and may be transported by road, rail, sea, or air without special hazardous material requirements.
- **UN Number:** Not regulated
- **UN Proper Shipping Name:** Not regulated
- **Transport Hazard Class:** Not regulated
- **Packing Group:** Not regulated
- **Marine Pollutant:** No
- **Environmental Hazard:** No
- **ADR/RID (Road and Rail Transport):** Not classified as hazardous for transport. Transport in properly sealed containers to avoid dust generation and contamination.
- **IMDG (Sea Transport):** Not classified as dangerous goods under the International Maritime Dangerous Goods Code. Not considered a marine pollutant.
- **IATA (Air Transport):** Not classified as dangerous goods for air transport. Standard packaging practices are sufficient.
- **Special Transport Precautions:** Protect containers from moisture, physical damage, and contamination. Keep packages tightly closed during loading, unloading, and transportation. Avoid excessive dust formation.
- **Transport in Bulk (MARPOL/IBC Code):** Not applicable.
- **Emergency Transport Information:** No special emergency transport measures are required beyond normal good industrial handling practices.
- These revisions remove all tables from Sections 3, 9, and 14 while maintaining a regulatory-compliant MSDS format.

15. Regulatory Information

International Regulations

- British Pharmacopoeia (BP)
- Good Manufacturing Practice (GMP)
- GHS Classification Guidelines

Chemical Inventory Status

Listed or exempt under major chemical inventories where applicable.

Labeling

No hazard labeling required under normal industrial use.

16. Other Information

The information contained herein is based on current knowledge and experience and is intended to describe the product for health, safety, and environmental requirements only. It should not be construed as guaranteeing any specific property of the product.

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