



Material Safety Data Sheet

Cab-O-Sil® Untreated Fumed Silica

Edition: 21/11/2007

1) Identification of substance/preparation and of the company undertaking

Material Cab-O-Sil® Untreated Fumed Silica M-5
Synonyms Silicon Dioxide, Synthetic Amorphous Silica, Pyrogenic (Fumed) Amorphous Silica
CAS No 112945-52-5
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2) Composition

Component Mineral Synthetic Amorphous, Pyrogenic Silica
CAS 112945-52-5

3) Hazard Identification

Indication Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 99/45/EC and their various amendments and adaptations.

Inhalation Dust may be irritating to respiratory tract. Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. See also Section 8.

Ingestion According to experience not expected.

Eyes May cause mechanical irritation.

Skin Repeated exposure may cause skin dryness or cracking.

Carcinogenic Effects Does not contain any substances greater than 0.1% listed by IARC (International Agency for Research on Cancer), NTP (National Toxicology Program), OSHA (Occupational Safety and Health Administration), ACGIH (American Conference for Governmental Industrial Hygienists) or EU (European Union). See also Section 11.

Target Organ Effects Lungs

Medical Conditions Aggravated by Exposure Asthma, Respiratory disorder

Potential Environmental Effects No special environmental precautions required.

4) First Aid Measures

Eyes Flush eyes immediately with large amounts of water for 15 minutes. Seek medical attention if redness, swelling, itching, burning or visual disturbances occur.

Skin Wash thoroughly with soap and water. Seek medical attention if redness, swelling, itching, or burning occurs.

Ingestion	Do not induce vomiting. If conscious, give several glasses of water. Never give anything by mouth to an unconscious person.
Inhalation	If cough, shortness of breath or other breathing problems occur, move to fresh air. Seek medical attention if symptoms persist. If necessary, restore normal breathing through standard first aid measures.

5) **Fire Fighting**

Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Special Protective Equipment for Firefighters	Wear suitable protective equipment. In the event of fire, wear self-contained breathing apparatus.
Specific Hazards	Product resists ignition and does not promote flame spread.
Hazardous Decomposition and/or Combustion Products	None.
Risk of Dust Explosion	This material is an inorganic dust and will not create nor support conditions that would result in a dust explosion or fire.

6) **Accidental Release**

Personal Precautions	Avoid dust formation. Ensure adequate ventilation. Use personal protective equipment. See also Section 8.
Methods for Cleaning Up	Clean up promptly by vacuum. Use a suitable vacuum cleaner. Do not create a dust cloud by using a brush or compressed air. Pick up and transfer to properly labelled containers.
Environmental Precautions	No special environmental precautions required. Local authorities should be advised if significant spillages cannot be contained.

7) **Handling/Storage**

Handling	Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust. Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. Do not create a dust cloud by using a brush or compressed air. Take precautionary measures against static discharge. All metal parts of the mixing and processing equipment must be earthed/grounded. Ensure all equipment is electrically earthed/grounded before beginning transfer operations.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store together with volatile chemicals as they may be adsorbed onto product. Keep at ambient temperatures.

8) **Exposure Controls**

UK Workplace Exposure Limit, Amorphous Silica, The regulatory exposure limits are found under the general silica, CAS# 7631-86-9	
TWA, Total inhalable fraction	6 mg/m ³
TWA, Respirable fraction	2.4 mg/m ³
TWA – Timed Weighted Average	

ENGINEERING CONTROLS

Ensure adequate ventilation to maintain exposures below occupational limits. Provide appropriate exhaust ventilation at machinery and at places where dust can be generated.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection	Approved respirator may be necessary if local exhaust ventilation is not adequate.
Hand Protection	Repeated exposure may cause skin dryness or cracking. Use appropriate protective barrier before handling.
Eye Protection	Wear eye/face protection.
Skin and Body Protection	Wear suitable protective clothing.
Other	Handle in accordance with good industrial hygiene and safety practice. Emergency eyewash and safety shower should be located nearby.

9) Physical/Chemical Properties

Appearance	White Powder
Odour	None
pH	3.6 - 4.5
Bulk Density	30-150 kg/m ³
Specific Gravity	2.2 g/cm ³ @ 20°C
Boiling Point/Range	2230°C
Melting Point/Range	1700°C
Water Solubility	Insoluble
% Volatile (by Volume)	Not applicable
Partition Coefficient (n-octanol/water)	Not applicable
Flash Point	Not applicable
Explosion Limits in Air - Upper (g/m ³)	Not applicable
Explosion Limits in Air - Lower (g/m ³)	Not applicable
Autoignition Temperature	Not applicable

10) Stability/Reactivity

Stability: Stable	
Hazardous Polymerization	Hazardous polymerization does not occur.
Mechanical Sensitivity (shock)	Not sensitive to mechanical impact.
Conditions to Avoid	Avoid dust formation.
Hazardous Decomposition and/or Combustion Products	None.
Static Discharge Effects	Take precautionary measures against static discharges. Avoid dust formation. All metal parts of the mixing and processing equipment must be earthed/grounded. Ensure all equipment is electrically earthed/grounded before beginning transfer operations. This material is an inorganic dust and will not create nor support conditions that would result in a dust explosion or fire.

11) Toxicological Info

Information given is based on data obtained from this substance or from similar substances.

ACUTE TOXICITY

Oral LD50	LD50/oral/rat = > 5000 mg/kg.
Inhalation LC50	Due to the product's physical characteristics, no suitable testing procedure is available.

Dermal LD50	LD50/dermal/rabbit = > 2000 mg/kg.
Eye Irritation	Draize score 1.0/110 @ 24 hr.
Skin Irritation	0/8 @ 24 hr.

SUBCHRONIC TOXICITY

No significant treatment-related adverse effects were observed in rats administered silica at doses of up to 8% silica in their diet for a duration of 2 weeks to 6 months.

CHRONIC TOXICITY

Carcinogenic Effects	Does not contain any substances greater than 0.1% listed by IARC (International Agency for Research on Cancer), NTP (National Toxicology Program), OSHA (Occupational Safety and Health Administration), ACGIH (American Conference for Governmental Industrial Hygienists) or EU (European Union).
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OTHER

Mutagenic Effects	Not mutagenic in AMES Test, Negative in the unscheduled DNA synthesis assay, Negative in the chromosome aberration test in Chinese hamster ovary (CHO) cells.
Reproductive Toxicity	Did not show teratogenic effects in animal experiments. According to experience not expected.
Sensitizing Effects	According to experience, sensitization is not expected.
Synergistic Materials	None reasonably foreseeable.

12) Ecological Information

Aquatic Toxicity	Fish (Brachydanio rerio) LC50 (96 hours): > 10,000 mg/l; (Method: OECD 203)
Mobility	Not expected to migrate.
Bioaccumulation	Not expected due to physicochemical properties of the substance.
Persistence / Degradability	The methods for determining biodegradability are not applicable to inorganic substances

13) Disposal Consideration

Disposal should be in accordance with local authority regulations.

14) Transport Information

Not classified as hazardous for transport

15) Regulatory Information

Regulatory information is found under the general silica: CAS RN 7631-86-9, EINECS RN 231-545-4.

Indication of danger	Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 99/45/EC and their various amendments and adaptations.
EU Food Contact Information	Listed as E551 on and is authorized for use according to EC-Directive 95/2/EC and its various amendments and adaptations. Meets all required purity criteria according to the Joint FAO/WHO Expert Committee on Food Additives (JECFA).

Cosmetic Use

Listed by the Cosmetic, Toiletry and Fragrance Association (CTFA) for use in cosmetics and personal care products.

All components of this product are listed on or exempt from the following inventories

Australian Inventory of Chemical Substances (AICS)

Canadian Domestic Substances List (DSL)

Chinese Inventory

European Inventory of Existing Commercial Chemical Substances (EINECS)

Japanese Existing and New Chemical Substances (ENCS)

Korean Existing Chemicals List (KECL)

New Zealand Hazardous Substances and New Organisms Act (HSNO)

Philippine Inventory of Chemicals and Chemical Substances (PICCS)

United States Toxic Substances Control Act (TSCA) Inventory

16) Other Information

This information is for health and safety guidance only, is not a material specification, and does not constitute the user's own assessment of suitability, and workplace risk as required by any other Health and Safety legislation. It is accurate to the best of our knowledge and belief, but since the conditions of handling and use are outside our control we make no guarantee of results, and assume no liability for damages incurred by use of this material.