

Rubaroc® Fumed Silica

Section 01 - Chemical and Product and Company Information

Product Identifier	Fumed Silica
Synonym(s)	Silicon Dioxide, Synthetic Amorphous Silica, Pyrogenic (Fumed) Amorphous Silica
Product Use	Various, Rheological control, Flow agent, Reinforcing agent in: Coatings, Adhesives and/or sealants, Silicone elastomer, Rubber products, Dispersion, Suspension
Supplier Name	Rubaroc 2416 Wyecroft Rd Unit #3 Oakville, ON L6L 6M6
Prepared by	Rubaroc Regulatory Department
Phone:	1 (888) 763-7276
Preparation Date	08/15/2018

24-Hour Emergency Phone

613-966-6666

Section 02 - Composition / Information on Ingredients

Chemical Name	CAS #	Weight	EU Classification
Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	100	None

*Exempt

Section 03 - Hazard Identification

Indication of danger Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

Emergency overview

CAUTION White powder. Odorless. Dust may be irritating to eyes and respiratory tract. Repeated exposure may cause skin dryness or cracking. Take precautionary measures against static discharges. All metal parts of the mixing and processing equipment must be earthed/grounded. Ensure all equipment is electrically earthed/grounded before beginning transfer operations.

Principal Routes of Exposure Inhalation, skin contact, eye contact

Potential Health Effects

Eye contact Can cause eye irritation.
Skin contact Repeated exposure may cause skin dryness or cracking.
Ingestion Health injuries are not known or expected under normal use.

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.
Carcinogenic effects	Does not contain any substances 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 irritated	Signs and symptoms of overexposure to vapours and skin contact may include temporary blurred vision. Symptoms typically last for several hours and are not permanent.

Potential environmental effects

No special environmental precautions required.

Section 04 - First Aid Measures

Skin Contact	Wash thoroughly with soap and water. Seek medical attention if redness, swelling, itching, or burning occurs.
Eyes	Flush eyes immediately with large amounts of water for 15 minutes. Seek medical attention if redness, swelling, itching, burning or visual disturbances occur.
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.
Ingestion	Do not induce vomiting. If conscious, give several glasses of water. Never give anything by mouth to an unconscious person.
Note to Physician	None.

Section 05 - Fire Fighting

Flash point(°C)	Not determined
Explosion limits in air – Upper (g/m³)	Not determined
Explosion limits in air – Lower (g/m³)	Not determined
OSHA Flammability Classification	Not applicable
Autoignition temperature	Not determined
Minimum ignition temperature	Not determined
Maximum absolute explosion pressure	Not determined

Extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Special firefighting procedures	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. May release formaldehyde when heated to high temperatures in the presence of air. Formaldehyde is a known skin and lung sensitizer and is regulated as a carcinogen.
Hazardous combustion products	Carbon monoxide, Carbon dioxide, Formaldehyde.
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.

Section 06 - Accidental Release Measures

Personal Precautions	Avoid dust formation. Remove all sources of ignition. 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. See Section 13.																				
Amorphous Silica	The regulatory exposure limits are found under the general silica, CAS RN 763186-9: <table border="0" style="margin-left: 20px;"> <tr> <td>Australia</td> <td>2 mg/m³, TWA, Respirable</td> </tr> <tr> <td>Australia MAK</td> <td>4 mg/m³, TWA, Inhalable fraction</td> </tr> <tr> <td>Finland</td> <td>5 mg/m³</td> </tr> <tr> <td>Germany TRGS 900</td> <td>4 mg/m³, TWA, Inhalable fraction</td> </tr> <tr> <td>India</td> <td>10 mg/m³, TWA</td> </tr> <tr> <td>Ireland</td> <td>2.4 mg/m³, TWA, Respirable dust</td> </tr> <tr> <td>Norway</td> <td>1.5 mg/m³, TWA, Respirable dust</td> </tr> <tr> <td>Switzerland</td> <td>4 mg/m³, TWA</td> </tr> <tr> <td>UK WEL</td> <td>6 mg/m³, TWA, Inhalable fraction</td> </tr> <tr> <td></td> <td>2.4 mg/m³, TWA, Respirable fraction</td> </tr> </table>	Australia	2 mg/m ³ , TWA, Respirable	Australia MAK	4 mg/m ³ , TWA, Inhalable fraction	Finland	5 mg/m ³	Germany TRGS 900	4 mg/m ³ , TWA, Inhalable fraction	India	10 mg/m ³ , TWA	Ireland	2.4 mg/m ³ , TWA, Respirable dust	Norway	1.5 mg/m ³ , TWA, Respirable dust	Switzerland	4 mg/m ³ , TWA	UK WEL	6 mg/m ³ , TWA, Inhalable fraction		2.4 mg/m ³ , TWA, Respirable fraction
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Environmental Precautions	No special environmental precautions required. Local authorities should be advised if significant spillages cannot be contained.																				

Section 07 - Handling and 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 and well-ventilated place. Do not store together with volatile chemicals as they may be adsorbed onto product. Keep at ambient temperatures.

Section 08 - Personal Protection and Exposure Controls

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

Protective equipment

Gloves	Repeated exposure may cause skin dryness or cracking. Use protective barrier cream before handling the product. Wear suitable gloves.
Respirator	Approved respirator may be necessary if local exhaust ventilation is not adequate.
Eye	Wear eye/face protection. Safety glasses with side-shields. Goggles.
Skin and Body	Wear suitable protective clothing. No special protective equipment required.
Other	Handle in accordance with good industrial hygiene and safety practice. Emergency eyewash and safety shower should be located nearby.

Exposure limits

There are no exposure limits identified for this product. Exposure limits for components are stated below.

Exposure limits for dust are stated below. Exposure limits for silica are stated below. In its facilities globally, Cabot Corporation manages to the Germany TRGS 900 occupational exposure limit of 4 mg/m³, TWA, Inhalable fraction.

Dust or particulates not otherwise specified Belgium	10 mg/m ³ , TWA, Inhalable 3 mg/m ³ , TWA, Respirable
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China	8 mg/m ³ , TWA 10 mg/m ³ , STEL
Italy	10 mg/m ³ , TWA, Inhalable 3 mg/m ³ , TWA, Respirable
Malaysia	10 mg/m ³ , TWA, Inhalable 3 mg/m ³ , TWA, Respirable
Spain	10 mg/m ³ , VLA, Inhalable 3 mg/m ³ , VLA, Respirable
US ACGIH – TLV	10 mg/m ³ , TWA, Inhalable 3 mg/m ³ , TWA, Respirable
US OSHA – PEL	15 mg/m ³ , TWA, Total dust 5 mg/m ³ , TWA, Respirable

MAK: Maximal Arbeitsplatzkonzentration (Maximum Workplace Concentration)

OEL: Occupational Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit

TLV: Threshold Limit Value

TRGS: Technische Regeln für Gefahrstoffe (Technical Rule for Hazardous Materials)

TWA: Time Weighted Average

US ACGIH: United States American Conference of Governmental Industrial Hygienists

US OSHA: United States Occupational Safety and Health Administration

VLA: Valore Límite Ambientales (Environmental Limit Value)

WEL: Workplace Exposure Limit

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.

Section 09 - Physical and Chemical Properties

Appearance	White Powder
Odor	None under normal use May exhibit odor at high temperature
Odor threshold	Not determined
pH	Not determined
Vapour pressure (mm hg)	Not determined
Vapour density (air=1)	Not determined
Boiling point/range	2230°C
Melting point/range	1700°C
Solubility in water	Insoluble

Relative density	2.2 @ 20°C
Bulk Density	4 lbs./ft ³
% Volatile (by weight)	Not determined
Evaporation rate	Not applicable
Viscosity	Not applicable
Partition coefficient	Not applicable
Flash point	Not determined
Flammability classification	Not applicable
Autoignition temperature	Not determined
Decomposition temperature	>150°C
Oxidizing properties	Not applicable
Explosive properties	Not applicable
Explosion limits in air – Upper (g/m ³)	Not applicable
Explosion limits in air – Lower (g/m ³)	Not applicable

Section 10 - Stability and Reactivity

Stability	Stable
Hazardous Polymerization	Hazardous polymerization does not occur.
Mechanical Sensitivity (shock)	Not sensitive to mechanical impact.
Conditions to avoid	Thermal decomposition can take place above 150°C. May release formaldehyde when heated to high temperatures in the presence of air. Formaldehyde is a known skin and lung sensitizer and is regulated as a carcinogen. Keep away from heat and sources of ignition. Avoid dust formation. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Product resists ignition and does not promote flame spread.
Hazardous Decomposition and/or Combustion Products	Carbon monoxide, Carbon dioxide, Formaldehyde.
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.

Section 11 - Toxicological Information

Effects of acute exposure

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

No data are available on the product itself.

STOT - Single Exposure

None observed.

Eye Irritation

Primary irritation index = 0 @ 48 hr. Non-irritating.

Skin Irritation

Primary irritation index = 0 Non-irritating

Subchronic Toxicity

No data are available on the product itself.

STOT - Repeated Exposure None expected**Effects of chronic exposure**

No data are available on the product itself.

Mutagenic Effects

Not mutagenic in AMES Test, chromosomal aberration in Chinese hamster ovary (CHO) cells.

Reproductive Toxicity

No data are available on the product itself. According to experience not expected.

Sensitization

Contains no known sensitizers.

Synergistic Materials

None reasonably foreseeable.

Carcinogenic Effects

Does not contain any substances 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)

Aspiration Hazard

Not determined

Section 12 - Ecological Information

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

Aquatic ToxicityFish (*Brachydanio rerio*) LC50 (96 h): > 10,000 mg/l; (Method: OECD 203) Crustacea (*Daphnia magna*) EC50 (24 h) > 1,000 mg/l (Method: OECD 202) Algae (*Scenedesmus subspicatus*) ErC50 (0-72 h) > 10,000 mg/l (Method: OECD 201)

Environmental Fate

Mobility	Not expected to migrate.
Bioaccumulation	According to experience not expected.
Persistence/Degradability	The methods for determining biodegradability are not applicable to inorganic substances
Distribution to Environmental Compartments	Not determined.
PBT and vPvB Assessment	This substance does not fulfill the criteria for PBT or vPvB
Other adverse effects	No other data are available

Section 13 - Disposal Consideration

Disclaimer: Information in this section pertains to the product as shipped in its intended composition as described in Section 3 of this MSDS. Contamination or processing may change waste characteristics and requirements. Regulations may also apply to empty containers, liners or rinsate. State/provincial and local regulations may be different from federal regulations.

RCRA Classification (40 CFR 261): Not a hazardous waste.

Unused and Uncontaminated Product: Product, as supplied, should be disposed of in accordance with the regulations issued by the appropriate federal, state and local authorities. Same consideration should be given to containers and packaging.

Section 14 - Transportation Information

US Department of Transportation Use UN Classification listed. **(US DOT) Hazardous Materials Regulations Status:**

UN Number	Not regulated
UN Proper Shipping Name	Not regulated
UN Shipping Class	Not regulated
UN Packing Group	Not regulated
IMDG (International Maritime Organization's Dangerous Goods Code)	Not regulated.
IATA	Not regulated.

Section 15 - Regulatory Information

Hazard Classification

United States	OSHA (29 CFR 1910.1200): Hazardous.
Mexico	NOM-018-STPS-2000: Refer to HMIS Rating in Section 16.
Canada	WHMIS Classification (CPR, SOR/88-66): Not controlled.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International Inventories

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

Yes	Australian Inventory of Chemical Substances (AICS)
Yes	Canadian Domestic Substances List (DSL)
Yes	Chinese Inventory
Yes	European Inventory of Existing Commercial Chemical Substances (EINECS)
Yes	Japanese Existing and New Chemical Substances (ENCS)
Yes	Korean Existing Chemicals List (KECL)
Yes	New Zealand Hazardous Substances and New Organisms Act (HSNO)
Yes	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
Yes	United States Toxic Substances Control Act (TSCA) Inventory

U.S. Federal Regulations

TSCA 12(b) Export Notification: This product does not contain any components that are subject to TSCA 12(b) Export Notification.

Clean Air Act Amendments of 1990 (CAA, Section 112, 40 CFR 82): This product does not contain any components listed as a Hazardous Air Pollutant, Flammable Substance, Toxic Substance, or Class 1 or 2 Ozone Depletor.

Clean Water Act (CWA, 40 CFR 116) Priority Pollutants: This product does not contain any listed Priority Pollutants.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, 40 CFR 302): This product does not contain any listed Hazardous Substances.

Superfund Amendments and Reauthorization Act, Title III (SARA):

SARA Section 302 (40 CFR 355) Extremely Hazardous Substances: No components are listed as extremely hazardous substances under SARA Section 302.

SARA Sections 311/312 (40 CFR 370) Hazard Category: This product does not meet any of the MSDS Requirement definitions for a hazardous material under SARA Sections 311/312.

Reporting may be required if the material is present at any one time in amounts equal to or greater than 10,000 pounds.

SARA Section 313 (40 CFR 372) Toxics Release Inventory: Does not contain any of the substances identified under Section 313 as toxic chemicals in excess of the de minimis concentrations necessary to be subject to the supplier notification requirements.

Pharmaceutical Information: Not permitted

U.S. State Regulations

California Proposition 65: This product does not contain any components listed on California Proposition 65.

US Coalition of North-Eastern Governors (CONEG) Metals List: Not determined.

Section 16 - Other Information

HMIS RATING

HMIS INDEX: * – chronic, 0 – minimal, 1 – slight, 2 – moderate, 3 – serious, 4 – severe

Health	1
Flammability	0
Physical Hazard	0

Disclaimer

The information set forth is based on information that Rubaroc believes to be accurate. No warranty, expressed or implied, is intended. The information is provided solely for your information and consideration and Rubaroc assumes no legal responsibility for use or reliance thereon. In the event of a discrepancy between the information on the non-English document and its English counterpart, the English version shall supersede.