



Safety Data Sheet PCA-DSF

Revision date: March 19, 2021

Section 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: PCA-DSF (Microsilica)
Synonyms: Amorphous Silica; Silica Fume; Condensed Silica Fume; Densified Silica Fume
Chemical family: Specialty Products
Producer: Premiere Concrete Admixtures
508 Cedar Street
Pioneer, Ohio 43554
www.premiereadmixon.com

Telephone: 419-737-9808 Available during normal business hours

Emergency: CHEMTREC 800-424-9300 Available 24 hours

Section 2. HAZARDS IDENTIFICATION

GHS Hazards, Label Elements, and Precautionary Statements

This product does not meet the criteria for hazard classification in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) (No Symbol)

Potential Health Effects

- Inhalation:** Inhalation of airborne dust may cause mechanical irritation of the upper respiratory tract.
- Ingestion:** Ingestion is not anticipated in an industrial environment. If ingested in large quantity, the material may locally dehydrate contacted tissue, producing mechanical irritation.
- Skin contact:** Skin contact with dust from this product can produce a drying sensation and mechanical irritation of the skin and mucous membranes.
- Eye contact:** Exposure to dust can produce a drying sensation and mechanical irritation of the eyes.
- Chronic:** This product is not known to pose any chronic health hazards.
- Carcinogenic evaluation:** No component of this product present at levels greater than 0.1 % is identified as a known, suspected or potential carcinogen by the NTP, the IARC or OSHA.

Section 3. COMPOSITION / INFORMATION ON INGREDIENTS

Material information:

Name	CAS No.	Weight %
Silicon Dioxide (SiO ₂) - Amorphous	69012-64-2	>85*
Silicon Dioxide (SiO ₂)	14808-60-7	<0.1* ¹

¹ The amount of respirable crystalline silica (quartz, cristobalite) in the product determined by X-ray diffraction is below 0.1 % and does not trigger any hazard classification.

Other Constituent Materials ²

Name	CAS No.	Weight %
Carbon (c)	7440-44-0	<10*
Aluminum Oxide (Al ₂ O ₃)	1344-28-1	<1*
Calcium Oxide (CaO)	1305-78-8	<1*
Iron Oxide (Fe ₂ O ₃)	1309-37-1	<1*
Magnesium Oxide (MgO)	1309-48-4	<1*
Sodium Oxide (Na ₂ O)	1310-73-2	<1*
Potassium Oxide (K ₂ O)	1310-58-3	<1*

² The manufacturer can provide a detailed elemental analysis, including other trace elements.

***Note:** The above weight percentages are represented in ranges as estimates. Due to variation among production batches, component percentages may vary.

Section 4. FIRST AID MEASURES

Inhalation: Move exposed persons to fresh air. If conscious and alert, encourage the person to blow nose to remove dust. If the person is not breathing or breathing is difficult or irregular, provide artificial respiration or oxygen by trained personnel. Seek medical attention.

Skin contact: Remove contaminated clothing and shoes. Wash affected skin with soap and water. Wash contaminated clothing before reuse. If skin irritation or dryness persists, seek medical attention.

Ingestion: Do not induce vomiting unless instructed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. If conscious and alert, rinse the mouth with water. Call a physician or poison control center immediately.

Eye contact: Check for and remove any contact lenses. Flushing eyes with tepid water lifting upper and lower lids occasionally for 15 minutes. If irritation or blurred vision persists, seek medical attention.

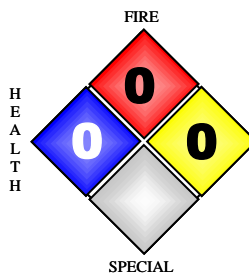
Section 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Use extinguishing media suitable for the surrounding fire.

Specific hazards: None

Special protective equipment for firefighters: Firefighters should wear full protective gear...

	NFPA rating:	HMIS rating:
Health:	0	1
Flammability:	0	0
Instability/reactivity:	0	0
Other:	N/A	B (PPE)



Slight Hazard
No Flash Point
Stable
N/A

Section 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Immediately contact emergency personnel. Evacuate any potentially affected area and isolate personnel from entry. Do not touch damaged containers or spilled material unless following health and safety precautions, refer to Section 8. Ensure adequate ventilation.
Large Spill:	Personnel must have appropriate training, per Occupational Safety and Health Administration (OSHA) 29 CFR 1910.120.
Methods for Containment and Clean up	Collect material using methods that minimize creation of airborne dust. Use a vacuum equipped with high efficiency particulate absolute (HEPA) filters. Place in a suitable container for recycling or disposal.

Section 7. HANDLING AND STORAGE

Handling:	Keep containers closed when not in use. Avoid formation of dust. Wash thoroughly after handling
Storage:	Store in a dry, well-ventilated place. Do not store with incompatible materials. See Section 10.

Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits:

Name	CAS No.	Exposure Limits TWA ^C		
		ACGIH [®] TLV [®]	Federal OSHA PELs	OSHA PELs 1989 ^B
Silicon Dioxide (SiO ₂) - Amorphous	69012-64-2	Withdrawn	Not Established	6 mg/m ³ ^A
Silicon Dioxide (SiO ₂)	14808-60-7	0.025 mg/m ³ ^A	$\frac{10 \text{ mg/m}^3}{\% \text{ SiO}_2}$ ^A	$\frac{10 \text{ mg/m}^3}{\% \text{ SiO}_2}$ ^A

^A Time Weighted Average (TWA) is an average exposure over the course of an 8-hour work shift. Measured as respirable-size dust.

^B Federal OSHA 1989 PELs were vacated but are in use and enforced by many state OSHA plans.

^C All exposure limits listed are 8-hour time weighted average (TWA) — except where noted otherwise.

Engineering measures: General ventilation is acceptable if exposure to materials in this section is maintained below applicable exposure limits. If exposure limits are exceeded, provide local exhaust ventilation according to general industrial hygiene practices.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection: When engineering controls are not sufficient to reduce exposure to levels below applicable exposure limits, seek professional advice prior to respirator selection and use. For concentrations less than 10 times the exposure limits, wear a properly fitted NIOSH/ MSHA-approved respirator with particulate N-95 filter.

Skin and body protection: Handle with gloves. Choose body protection according to the amount and concentration of dust created.

Eye protection: Wear safety glasses with unperforated sideshields.

Hygiene measures: Avoid repeated or prolonged skin exposure. Wash hands before eating, drinking, smoking, or using toilet facilities.

Other precautions: None

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Light to Dark Gray powder
Physical state (solid/liquid/gas):	Ultrafine Powder
Substance type (pure/mixture):	Mixture
Color:	Light to Dark Gray
Odor:	None
Molecular weight:	Not available
pH:	Not applicable
Boiling point/range (5-95%):	Not available
Melting point/range:	2,246°F, 1,230°C
Decomposition temperature:	Not available
Specific gravity (water = 1):	2.2-2.3
Vapor density:	Not applicable
Vapor pressure:	Not applicable
Evaporation rate (Butyl acetate= 1):	Not applicable
Flash point, method used:	Not applicable
Water solubility:	Insoluble
VOC Content:	0 %
Auto-ignition temperature:	Material is not self-igniting
Flammable limits in air — lower (%):	Not applicable
Flammable limits in air — upper (%):	Not applicable
Particle size (microns):	approximately 0.5
Bulk Density:	10 - 45 pounds/ft ³ ; 150 - 700 kilogram/m ³

Section 10. STABILITY AND REACTIVITY

Reactivity:	None known
Stability:	The material is stable.
Possibly hazardous reactions:	Reacts with hydrofluoric acid, forming toxic gas (SiF ₄)
Conditions to avoid:	None known.
Incompatible Materials:	Strong oxidizing agents, bases, hydrofluoric acid, and fluorides
Hazardous decomposition products:	Prolonged heating above 930°F, 500°C will convert amorphous silica to the crystalline silica, see Section 11
Polymerization:	Will not occur.

Section 11. TOXICOLOGICAL INFORMATION

Acute toxicity:

Product information:

Name	CAS No.	Inhalation:	Dermal:	Oral:
Silicon Dioxide (SiO ₂) - Amorphous	69012-64-2	Not available	Not available	Not available
Silicon Dioxide (Quartz SiO ₂)	14808-60-7	Not available	Not available	Acute LD ₅₀ (Rat):500 mg/kg

Chronic Toxicity: Amorphous silica is not classifiable as to its carcinogenicity to humans (Group 3)

Sensitization: Not known to cause sensitization in humans.

Chronic Health Effects: This product may contain impurities of Silicon Dioxide - crystalline quartz (<0.1%). Inhalation of crystalline silica dust entails risk of pulmonary fibrosis (silicosis). Cases of lung fibrosis have been reported among workers exposed to amorphous silica in the ferrosilicon

industry. These lung changes have either been transient or may have been caused by the simultaneous exposure to crystalline silica (quartz).

Section 12. ECOLOGICAL INFORMATION

Ecotoxicity effects: No ecotoxicity data are available for this product's components.
Bioaccumulative Potential: There is no evidence to suggest bioaccumulation will occur.
Persistence and degradability: Not applicable for inorganic material.
Mobility in Soil: There is no evidence that spills of materials to soil would cause adverse ecological effects.

Section 13. DISPOSAL CONSIDERATIONS

Disposal considerations: Reuse all product when possible. This product is not regulated as a hazardous waste under U.S. RCRA regulations. Dispose in an approved landfill in accordance with state/ provincial, and local regulations.

Section 14. TRANSPORT INFORMATION

Please refer to DOT regulation 49 CFR 172.101:
Transport information: Not regulated for transport
Hazardous Materials Description: (DOT and IATA): None
UN/identification no.: None
Proper shipping name: None
Hazard class: None
Packing group: None
DOT reportable quantity (lbs.): None

Section 15. REGULATORY INFORMATION

U.S. federal regulatory information:

State and community right-to-know regulations:

The following component(s) of this material are identified on the regulatory lists below:

U.S. TSCA Chemical inventory Section 8(b); Canada Ingredients Disclosure List (IDL) and Dangerous Substances List (DSL): Amorphous silicon dioxide, CAS Number 69012-64-2, is listed or exempt in TSCA, DSL, and IDL.

OSHA — Amorphous silica fume can be considered a nuisance dust and is as such outside the scope of the revised OSHA Hazard Communications Standard, (29 CFR 1910.120(b)(6)(x)).

CERCLA Sections 102a/103 (40 FR 302.4):

This product is not classified as hazardous or reportable under this requirement.

Some Components of this product are listed in the following sections of **SARA**:

SARA Title III Section 302 — Not applicable

SARA Title III Section 304 — Not applicable

SARA Title III Section 313 — Not applicable

SARA Title III Sections 311/312 Hazardous Categories (40 CFR 370.21)

Acute health hazard: Yes

Chronic health hazard: Yes

Fire hazard: No

Reactive Hazard: No
Pressure Hazard: No

Marine Pollutant: Not listed

State Regulations: Amorphous silicon dioxide, CAS Number 69012-64-2, appears on the following state hazardous substance lists: MA, MN, PA, and NJ. Check individual state requirements.

California Proposition 65 Components

This product contains <0.1% crystalline silica (quartz) CAS 14808-60-7, a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

INTERNATIONAL REGULATIONS

Identification According to EEC Directives: Amorphous silicon dioxide, CAS Number 69012-64-2, is not classified as dangerous according to the rules of 67/548/EEC and amended by 92/32/EEC.

EINECS Number: 273-761-1

WHMIS (Canada)

Classification: Not classified

Amorphous silicon dioxide, CAS Number 69012-64-2, and crystalline silica (quartz) CAS 14808-60-7 are listed on the WHMIS Ingredient Disclosure List.

NOTE: User must consult with applicable state and local agencies for special specifics, determinations or compliance obligations regarding this product.

Section 16. OTHER INFORMATION

The information and recommendations contained herein are based upon tests, data, and information resources believed to be reliable. However, Premiere Concrete Admixtures (Premiere) does not guarantee the accuracy or completeness, nor shall any of this information constitute a warranty, representation, or license of any kind, whether expressed or implied, as to the safety of goods, the merchantability of the goods or the fitness of the goods for a particular purpose. Premiere assumes no responsibility for injuries proximately caused by use of the Materials if reasonable safety procedures are not followed as stipulated in this Safety Data Sheet. Additionally, Premiere assumes no responsibility for injuries proximately caused by abnormal use of the Material even if reasonable safety procedures are followed. The buyer assumes the risk in its use of the Material.