

# MATERIAL SAFETY DATA SHEET

## SECTION 1: Identification

Company Name: Troemner LLC  
201 Wolf Drive  
Thorofare, NJ 08086

Emergency Number: 847-520-4455  
Information Number: 847-520-4455  
Date prepared: 09-26-08

Product Name: Silicon Carbide Black, Silicon Carbide Green

## SECTION 2: Composition/Identity Information

Component	CAS Number	OSHA - PEL	ACGIH - TLV	Percent
Silicon Carbide	409-21-2	5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup> TWA	97 - 99
Fumed Silica	69012-64-2	5 mg/m <sup>3</sup>	2 mg/m <sup>3</sup> TWA	<1
Quartz	14808-60-7	10 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup> TWA	0 - 0.1
		% SiO <sub>2</sub> + 2		
Cristobalite	14464-46-1	5 mg/m <sup>3</sup>	0.025 mg/m <sup>3</sup> TWA	0 - 0.5
		% SiO <sub>2</sub> + 2		
		respirable fraction	respirable fraction	

PEL means OSHA Permissible Exposure Limit

TLV means American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value

TWA means 8 hour Time Weighted Average

The International Agency for Research on Cancer (IARC) has classified Quartz and Cristobalite as a Group 1 human carcinogen.

According to OSHA, the bulk analysis given above for quartz and cristobalite cannot be used to calculate the respirable PEL. The respirable PEL can only be established by testing at the point of use following procedures outlined in the OSHA Technical Manual, Section 11, Chapter 1, Personal Sampling for Air Contaminants.

## Section 3: Physical and Chemical Data

Boiling Point: Sublimes Vapor Density: N/A Specific Gravity: 3.2  
Melting Point: Sublimes ~ 2300°C Vapor Density: N/A Evaporation rate: N/A  
Solubility in Water: Insoluble  
Solubility in Other Solvent: Fuming Potassium Hydroxide. Insoluble in most acids. Very slight surface action with boiling hydrofluoric acid and hydrofluoric-nitric acid.  
Appearance and odor: Black to Gray of Green; granular to powder; odorless

## Section 4: Fire and Explosion Data

Flash Point: None Autoignition Temperature: Will not burn  
Flammable Limits: LEL: N/A UEL: N/A  
Extinguishing Media: Will not burn. May be used to extinguish fires.  
Special Fire Fighting Procedures: None. Will not burn.  
Unusual Fire and Explosion Hazards: None

## Section 5: Reactivity Data

Stability: Stable Conditions to Avoid: None  
Materials to Avoid: None Hazardous Decomposition Products: None  
Hazardous Polymerization: Will not occur

## Section 6: Health Hazard Data

**Ingestion:** No known adverse effects for normal, incidental ingestion.

**Eye Contact:** May cause abrasion and irritation.

**Skin Contact:** Not absorbed through the skin. May cause abrasions.

**Inhalation:** May cause coughing or shortness of breath. Chronically may affect breathing capacity leading to extensive fibrosis and progressive disease. Silicon carbide may contain trace amounts (<0.6%) of crystalline silica which has been classified by IARC as a human carcinogen. According to OSHA, prolonged breathing of crystalline silica dust may cause lung disease (silicosis, carcinogen).

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Section 7: First Aid Measures

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- Inhalation:** If there is gross inhalation of dust causing coughing and shortness of breath, remove victim to fresh air. If breathing has stopped, perform artificial respiration. Seek medical attention.
- Ingestion:** If large amounts are swallowed, get medical attention.
- Eye Contact:** Flush eyes with large amounts of water. If irritation persists, get medical attention.
- Skin Contact:** Wash with soap and water. Obtain first aid or medical assistance as needed.
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Section 8: Storage, Handling, and Use Protection Information

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- Normal Storage and Handling:** Avoid breathing dust. Use adequate ventilation and dust collection. Avoid breakage of bagged material and spills of bulk material. Use good housekeeping to prevent accumulation of dust in work area. Avoid creation of respirable dust.  
See OSHA Hazard Communication Standard 29 CFR 1910-94 (Ventilation).
- Ventilation:** Use sufficient local mechanical exhaust as required to maintain level of respirable dust below the Permissible Exposure Limit of Threshold Limit Value.  
See ACGIH "Industrial Ventilation - A Manual for Recommended Practice" (latest edition).
- Respiratory Protection:** Use appropriate NIOSH approved respiratory protection for respirable dust if PEL or TLV are exceeded.  
See OSHA (29CFR 1910.134) and MSHA (30CFR Parts 56 and 57) and NIOSH "Respirator Decision Logic".
- Eye Protection:** Safety glasses with side shields or goggles recommended.
- Protective Gloves:** Not normally necessary.
- Other Protective Equipment/Clothing:** As appropriate for the work environment.
- Cleanup and Spill Information:** Collect using dustless methods (HEPA vacuum or flush with water) to minimize generation of airborne respirable dust.
- Waste Disposal Information:** If uncontaminated, approved for disposal as an inert, non-metallic mineral in accordance with federal, state and local regulations. If contaminated, the user must assess the proper disposal for the material appropriate for the contamination.
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Section 9: Other Regulatory Information

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- U.S. Department of Transportation:** Silicon Carbide is NOT a hazardous material for purposes of transportation.  
US DOT Table of Hazardous Materials, 49CFR 172.101.
- Resource Conservation and Recovery Act:** Silicon Carbide is NOT classified as a hazardous material under RCRA or its regulations.  
40CFR 261.
- Toxic Substances Control Act:** Silicon Carbide is ON the EPA TSCA Inventory under CAS #409-21-2
- Comprehensive Environmental Response Compensation and Liability Act:** Silicon Carbide is NOT classified as a hazardous substance under CERCLA regulations, 40 CFR 302.
- Superfund Amendments and Reauthorization Act (SARA) Emergency Planning and Community Right to Know Act:** Silicon Carbide is NOT an extremely hazardous substance in Section 302 and is NOT a toxic chemical subject to the requirements of Section 313.

National Fire Protection Association (NFPA) Hazard Rating:

Health: 1

Fire: 0

Reactivity: 0

Hazardous Material Information System (HMIS) Hazard Rating:

Health: 1

Flammability: 0

Reactivity: 0

Protective Equipment: A

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Note: The information contained in this Material Safety Data Sheet is taken from sources believed to be accurate and correct. Troemner makes no expressed or implied warranty with respect to the accuracy of the information or the suitability of the recommendations. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by purchase, resale, use or exposure to our product. Customers/users of the product must comply with all federal, state and local laws and regulations.

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NAIF = No applicable information found

N/A = Not applicable

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