

# Material Safety Data Sheet

## Carborundum

ACC# 20700

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Carborundum

**Catalog Numbers:** C192-500

**Synonyms:** Silicon Carbide.

**Company Identification:**

Fisher Scientific

1 Reagent Lane

Fair Lawn, NJ 07410

**For information, call:** 201-796-7100

**Emergency Number:** 201-796-7100

**For CHEMTREC assistance, call:** 800-424-9300

**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

| CAS#     | Chemical Name   | Percent | EINECS/ELINCS |
|----------|-----------------|---------|---------------|
| 409-21-2 | SILICON CARBIDE | 100.0   | 206-991-8     |

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: colorless to black solid.

**Caution!** May cause eye and skin irritation. May cause respiratory and digestive tract irritation. May cause lung damage. May cause cancer based on animal studies.

**Target Organs:** No data found.

#### Potential Health Effects

**Eye:** Dust may cause mechanical irritation.

**Skin:** Dust may cause mechanical irritation.

**Ingestion:** May cause irritation of the digestive tract.

**Inhalation:** Dust is irritating to the respiratory tract. May cause lung damage. Contains crystalline silica which may lead to respiratory abnormalities and silicosis.

**Chronic:** Chronic inhalation of dust may lead to silicosis. May cause lung damage. May cause silicosis-disabling pulmonary fibrosis characterized by fibrotic changes and miliary nodules in the lungs, dry cough, shortness of breath, emphysema, decreased chest expansion and increased susceptibility to tuberculosis.

### Section 4 - First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin:** Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.

**Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get

medical aid.

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation.

**Notes to Physician:** Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Material will not burn. Use extinguishing media appropriate to the surrounding fire. Dousing metallic fires with water may generate hydrogen gas, an extremely dangerous explosion hazard.

**Extinguishing Media:** Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not applicable.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 1; Flammability: 0; Instability: 0

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Use only in a well-ventilated area. Minimize dust generation and accumulation. Avoid contact with skin and eyes. Avoid ingestion and inhalation.

**Storage:** Store in a dry area.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

### Exposure Limits

| Chemical Name   | ACGIH   | NIOSH  | OSHA - Final PELs  |
|-----------------|---|--|--|
| SILICON CARBIDE | 10 mg/m <sup>3</sup> TWA (nonfibrous, inhalable fraction, particulate matter containing no asbestos and <1% crystalline silica); 3 mg/m <sup>3</sup> TWA (nonfibrous, respirable fraction, particulate matter containing no asbestos and <1% crystalline silica); 0.1 fiber/cm <sup>3</sup> TWA (respirable fibers, including | 10 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable dust) | 15 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable fraction) |

**OSHA Vacated PELs:** SILICON CARBIDE: 10 mg/m<sup>3</sup> TWA (total dust); 5 mg/m<sup>3</sup> TWA (respirable fraction)

**Personal Protective Equipment**

**Eyes:** Wear safety goggles approved for the handling of explosive materials.

**Skin:** Wear appropriate gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to minimize contact with skin.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## Section 9 - Physical and Chemical Properties

**Physical State:** Solid

**Appearance:** colorless to black

**Odor:** none reported

**pH:** Not available.

**Vapor Pressure:** Not applicable.

**Vapor Density:** Not available.

**Evaporation Rate:** Not applicable.

**Viscosity:** Not applicable.

**Boiling Point:** Not applicable.

**Freezing/Melting Point:** 2700 deg C

**Decomposition Temperature:** Not available.

**Solubility:** insoluble in water

**Specific Gravity/Density:** 3.2

**Molecular Formula:** SiC

**Molecular Weight:** 40.0855

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable.

**Conditions to Avoid:** Dust generation, excess heat.

**Incompatibilities with Other Materials:** None reported.

**Hazardous Decomposition Products:** Oxides of silicon.

**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 409-21-2: VW0450000

**LD50/LC50:**

Not available.

**Carcinogenicity:**

CAS# 409-21-2:

- **ACGIH:** A2 - Suspected Human Carcinogen (fibrous, including whiskers)
- **California:** Not listed.
- **NTP:** Not listed.
- **IARC:** Not listed.

**Epidemiology:** An examination of 53 silicon carbide crushers showed 15 cases of pneumoconiosis in workers

employed on the crushing, sieving and packing of silicon carbide have been reported.

**Teratogenicity:** No information found

**Reproductive Effects:** No information found

**Mutagenicity:** No information found

**Neurotoxicity:** No information found

**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** No data available. No information reported.

**Environmental:** No information reported.

**Physical:** No information reported.

**Other:** None

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

|                       | US DOT                                | Canada TDG                |
|-----------------------|---------------------------------------|---------------------------|
| <b>Shipping Name:</b> | Not regulated as a hazardous material | No information available. |
| <b>Hazard Class:</b>  |                                       |                           |
| <b>UN Number:</b>     |                                       |                           |
| <b>Packing Group:</b> |                                       |                           |

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 409-21-2 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

**Section 313** No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

**Clean Water Act:**

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:**

None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**

CAS# 409-21-2 can be found on the following state right to know lists: New Jersey, Pennsylvania, Minnesota, Massachusetts.

**California Prop 65**

California No Significant Risk Level: None of the chemicals in this product are listed.

**European/International Regulations**

**European Labeling in Accordance with EC Directives**

**Hazard Symbols:**

Not available.

**Risk Phrases:**

**Safety Phrases:**

**WGK (Water Danger/Protection)**

CAS# 409-21-2: No information available.

**Canada - DSL/NDSL**

CAS# 409-21-2 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of D2B.

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

**Canadian Ingredient Disclosure List**

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| <b>Section 16 - Additional Information</b> |
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**MSDS Creation Date:** 12/12/1997

**Revision #7 Date:** 2/15/2008

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