

MATERIAL SAFETY DATA SHEET

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1. PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: **CARBO LITE®** (All Mesh Sizes)
SYNONYM(S): Neo Products CarboCeramic Bridging Material P/N: DA 0175-099-099
CHEMICAL FAMILY: Aluminosilicate
MANUFACTURER: CARBO Ceramics
4810 Industrial Drive
New Iberia, Louisiana 70560
Phone: 1-337-367-6151
EMERGENCY PHONE: 1-800-551-3247 (U.S.A.)

2. COMPOSITION/INFORMATION ON INGREDIENTS

| INGREDIENTS | CAS NUMBER | CONCENTRATION | CLASSIFICATION | R-PHRASES |
|---------------------------------------|------------|---------------|----------------|--------------|
| Silicon Dioxide, (amorphous as glass) | 7631-86-9 | 5-35% | Not Classified | Not assigned |
| Mullite | 1302-93-8 | 60-85% | Not Classified | Not assigned |
| Silica Crystalline-Cristobalite | 14464-46-1 | 0-20% | Not Classified | Not assigned |

3. HEALTH HAZARD INFORMATION

INHALATION: Inhalation of dusts may cause respiratory tract irritation. Repeated or prolonged breathing of particles of respirable size may cause severe respiratory disease. However, this product contains few particles of respirable size. Repeated indoor air quality monitoring and testing conducted throughout the production and shipping process at CARBO Ceramics, Inc. shows that the final product produces levels of respirable silica (in the form of crystalline cristobalite) below laboratory detection limits and applicable exposure limits (see section 8). The amount of dust due to breakdown during shipment and intended use and handling is not expected to exceed applicable exposure limits (see section 8). Analyses for crystalline forms of silica at CARBO Ceramics, Inc. facilities were performed by X-ray diffraction based upon OSHA ID 142 guidelines.

EYE CONTACT: Airborne dust may cause irritation to eyes.

SKIN CONTACT: Prolonged contact with a skin may cause irritation.

HMS RATING: HEALTH 1 (slight) FLAMMABILITY 0 (minimal) REACTIVITY 0 (minimal) **SPECIAL PROTECTION:** (See section 8)

4. FIRST AID MEASURES

INHALATION: Remove affected person from source of exposure. Get medical attention if irritation occurs.

INGESTION: Seek medical attention if large quantities are ingested.

EYE CONTACT: Immediately flush eyes with large amounts of water, lifting the lower and upper lids occasionally. If irritation is present after washing, get medical attention.

SKIN CONTACT: Wash the affected area with soap and water. Get medical attention if irritation occurs.

5. FIRE-FIGHTING MEASURES

ESTIMATED EXPLOSIVE LIMITS (% By volume in air): LEL: N/A UEL: N/A **FLASH POINT:** N/A

SPECIAL FIRE FIGHTING PROCEDURES: This material does not give a flash point by conventional test methods. Use extinguishing agent suitable for type of surrounding fire.

UNUSUAL HAZARDS: N/A

6. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: No Special procedures are required for clean-up of spills or leaks of this material. Caution should be exercised regarding personal safety and exposure to the spilled material, the material's nature could cause reduced traction. Persons should take care so as not to slip.

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7. HANDLING AND STORAGE

HANDLING: Do not create dust. Use personal protective equipment. Refer to section 8 for suggested personal protective equipment.

STORAGE: Store dry in closed container to reduce dust.

8. EXPOSURE CONTROLS/PROTECTION DURING USE

| EXPOSURE LIMITS: | INGREDIENTS | OSHA PEL-TWA | ACGIH-TWA TLV |
|--------------------------------------|---|--|--|
| | Silicon Dioxide, amorphous as glass | 80 mg/m ³ /%SiO ₂ (total) | - |
| | Mullite | 15 mg/m ³ (total) 5 mg/m ³ (respirable) | 10 mg/m ³ (total) 3 mg/m ³ (resp) |
| | Silica Crystalline Cristobalite | 15 mg/m ³ /(%SiO ₂ +2) (total) 5 mg/m ³ /(%SiO ₂ +2) (respirable) | 0.05 mg/m ³ (respirable) |
| ENGINEERING CONTROL MEASURES: | Exposure to this material may be controlled in a number of ways. The measures appropriate for a particular worksite depend on how the material is used and the potential for exposure. Use of the basic principles of industrial hygiene will enable safe handling of the material. | | |
| RESPIRATORY: | An applicable NIOSH/MSHA or equivalent approved respirator should be worn where airborne exposures may exceed OSHA/ACGIH permissible air concentrations. | | |
| EYE PROTECTION: | Wear safety glasses or chemical goggles to prevent eye contact. Do not wear contact lenses when working with this substance unless protected under full coverage goggles. | | |
| CLOTHING/GLOVES: | Gloves are optional to reduce abrasion. | | |
| WORK HYGIENE PRACTICES: | Handle in accordance with good personal hygiene and safety practices. | | |
| VENTILATION: | Provide sufficient (general and/or local exhaust) ventilation to maintain exposure below permissible air concentrations. | | |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | | |
|--|--------------------------------------|------------------------------|--------------------------|----------------|
| BOILING POINT: | N/A °F | SPECIFIC GRAVITY: | 2.7 (H ₂ O=1) | pH: N/A |
| MELTING POINT: | 4000 °F (estimated) | BULK DENSITY: | 98 lb/cu.ft. | |
| VAPOR PRESSURE: | N/A mm Hg | % VOLATILE BY WEIGHT: | N/A | |
| VAPOR DENSITY: | N/A (Air = 1) | EVAPORATION RATE: | N/A (Butyl Acetate=1) | |
| APPEARANCE/ODOR: | Odorless cream to light-gray spheres | SOLUBILITY IN WATER: | Insoluble | |
| VOLATILE ORGANIC COMPOUNDS (VOC): | 0 lbs/gal (EPA Reference Methods 24) | | | |

10. STABILITY AND REACTIVITY

REACTIVITY: Minimal

STABILITY: Stable

INCOMPATIBLE MATERIALS: Chlorine Trifluoride.

11. TOXICOLOGICAL INFORMATION

ACUTE EFFECTS Coughing and throat irritation are early symptoms of excessive exposure. Acute pneumoconiosis from excessive exposure to silica dust has occurred. May be irritating to the respiratory system, lungs and skin. May also cause irritation to eyes.

CHRONIC EFFECTS: Inhalation of respirable crystalline-cristobalite in excess of established human exposure limits is known to cause human cancer. Chronic exposure can cause severe respiratory disease.

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12. ECOLOGICAL INFORMATION

This product poses no significant environmental contamination impact during expected use, handling, and proper disposal.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Disposal must be at an approved waste disposal facility and in accordance with applicable Federal, State and Local laws and regulations. Contact the district Director of the Environmental Protection Agency and/or state regulatory agency for appropriate requirements.

14. TRANSPORTATION INFORMATION

| | |
|--------------------------|----------------|
| UN NO. | N/A |
| ICAO/IATA | Not Restricted |
| RID/ADR | Not Restricted |
| DOT SHIPPING DESCRIPTION | Not Restricted |
| CAN | Not Restricted |
| IMO | Not Restricted |

15. REGULATORY INFORMATION

TOXIC SUBSTANCE CONTROL ACT (TSCA) STATUS: All chemicals in this product are listed, automatically included, or are exempt from listing on the TSCA Inventory. SARA TITLE III: Section 302: None
Section 312: None
Section 313: None

CERCLA REPORTABLE QUANTITY: None

CLEAN AIR AMENDMENTS-HAZARDOUS AIR POLLUTANTS (HAPS): None

CALIFORNIA STATE PROPOSITION 65: Silica, crystalline (airborne particles of respirable size)

16. OTHER INFORMATION