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Safety Data Sheet

SECTION 1

MANUFACTURER'S NAME AND CONTACT INFORMATION

(See above)

SECTION 2 - Product and Supplier Identification

Product Identifier used: Silicon Carbide CVD/Coated Graphite

Other Means of Identification: Not Available

Product type: Solid Block

Relevant identified uses of the substance or mixture and uses advised against

Manufacturing tooling, fixtures, other industrial manufacturing components.

Manufacturing tooling, fixtures, other industrial uses.

SECTION 3 – Hazard Identification

OSHA/HCS status: While this material is not considered hazardous The OSHA Hazard Communication Standard (29 CFR 1910. 1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification:

This material is not classified as hazardous under the Globally Harmonized System of Classification and Labeling and the US OSHA Hazard Communication Standard.

Signal word, symbols, hazards and

Insoluble Not applicable (because not classified as hazardous)

Other information about health hazards:

No known significant effects or critical hazards.

Appearance: Other information about physical hazards:

May form combustible dust concentrations in air during processing activities (including; but not limited to: cutting, sanding, drilling, machining, dust control equipment, other dust generating activities). Users of this material should perform combustibility testing, prior to use, specific to their use conditions if dust is to be generated.

SECTION 4 – Composition

Component	CAS Registry Number	Concentration % by weight
Graphite, synthetic	7440-44-0	90-99%
Silicon, carbide	409-21-2	1-10%

SECTION 5 - First Aid Measures

Inhalation: Remove affected personnel to an exposure-free environment. Wash skin with soap and water. Immediately flush eyes with plenty of Water for at least 20 minutes occasionally lifting the upper and lower eyelids. Wash mouth with water. Do not induce vomiting unless directed to do so by medical personnel.

Skin and eye contact:

Ingestion:

Indication of need for:

Immediate medical attention and special treatment: If breathing is difficult, oxygen may be administered, seek medical attention. If breathing has stopped, artificial respiration should be started. Seek medical attention.

Most important symptoms/effects. acute and delayed. No known significant effects or critical hazards.

SECTION 6 - Fire Fighting Measures

Fine dust clouds may form explosive mixtures with air.

Suitable extinguishing media:
Use an extinguisher that is suitable for the surrounding fire. Dusts are combustible- Use water, Carbon Dioxide, dry chemical or foam.

Hazardous thermal decomposition products:

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Combustion Hazards:

When burned, carbon/graphite release carbon dioxide (and possible carbon monoxide if there is not enough oxygen for complete combustion).

Special fire-fighting procedures;

Use protective clothing and breathing equipment appropriate to the surrounding fire. Material in or near fires should be cooled with a water spray or fog. A self-contained breathing apparatus, operating in the positive pressure mode should be worn for combating fires.

Unusual fire and explosion hazards:

As is the case with any combustible dust, concentration of airborne carbon/graphite powder can present a dust explosion hazard. Practice good housekeeping to prevent dust accumulation and prevent situations where substantial amounts of dust can become airborne. Thermal decomposition or combustion may produce smoke, oxides of Carbon and low molecular weight organic compounds whose composition has not been characterized.

Flash point: Not applicable

Flammable limits: Not applicable

SECTION 7- Accidental Release Measures

Minimize dust generation and accumulation. Keep unnecessary and unprotected personnel from entering. Provide adequate ventilation. Put on appropriate personal protective equipment.

For Emergency responders:

If specialized clothing is required to deal with the spillage, take note of any information in Section 10 on suitable and unsuitable materials. Dust deposits should not be allowed to accumulate on surfaces, as these may form and explosive mixture if they are released into the atmosphere in sufficient concentrations.

SECTION 8- Handling and storage

Maintain blocks in stable condition. Any machined generated dust or powder should be maintained in closed container. Do not let containers of material accumulate in the workplace. Avoid creating and breathing airborne dust. Practice good hygiene. As good practice, wash hands before eating, drinking or smoking and do not store food, or eat or drink, in areas where chemicals are handled. Any dusts generated during handling or processing should be cleaned up by wet mopping or vacuuming with a unit which contains a Hepa filter. Dry sweeping can suspend particulate matter in the atmosphere.

SECTION 9- Exposure Controls and personal Protection

Exposure limits and guidelines:

Material	OSHA PEL 8-Hr TWA	ACGIH TLV 8-Hr TWA
Graphite, synthetic	10 mg/m ³	2.0 mg/m ³ (respirable)

Other jurisdiction may have different exposure limits and control guidelines. Users are advised to consult and comply with local regulations.

Engineering controls:

Use good housekeeping practices. Use general or local exhaust ventilation, if necessary, to reduce concentrations of airborne contaminants.

Personal protective equipment:

Use NIOSH-approved respiratory protective equipment (for example, an N-95 dust mask) if exposures exceed established limits. Protective glasses with side shields should be worn to prevent eye contact with particulate matter. Protective gloves are recommended to prevent cuts, abrasions, and irritation during handling and processing. Normal work clothes may become soiled by dusts, coveralls are recommended. Wash soiled clothing before reuse.

General hygiene considerations:

As good practice, wash hands before eating, drinking or smoking and do not store food, or eat or drink, in areas where chemicals are handled.

SECTION 10 – Physical and Chemical Properties

Appearance:	Gray to black	Odor:	Odorless
Melting point:	3650° C (6602°F)	Boiling Point:	Not applicable
Flash Point:	Not applicable	Evaporation rate:	Not applicable
Flammability:	Not applicable	LEL/UEL:	Not applicable
Vapor pressure:	Not applicable	Vapor density:	Not applicable
Relative density:	2.3 to 2.8	Water solubility:	Insoluble
Partition coefficient	Not applicable	Auto ignition:	Very high

(n-octanol/water):

Decomposition

Temperature: Not applicable

Viscosity: Not applicable

SECTION 11- Stability and Reactivity

This material is stable and non-reactive

Stability:

Stable

Hazardous Polymerization:

Will Not Occur

Incompatibility (Materials to Avoid):

Avoid Strong Oxidizing Agents.

SECTION 12- Toxicology Information

Effects of over exposure; acute:

High concentration of Graphite dusts may be irritating to the eyes, skin, mucous membranes, and respiratory tract.

Information on the likely routes of exposure:

Route of entry anticipated: Oral, Dermal, and Inhalation.

SECTION 13 – Ecological Information

Steps to be taken in case material is spilled or released

Spilled or released material should be picked up with suitable implement and returned to the original container if reusable. If not reusable, the material should be placed in DOT approved containers for disposal. Personal involved in the cleanup should be wearing appropriate personal protective equipment. (See

Section 9). Carbon/graphite is relatively inert and would be expected to be of negligible consequences in the environment.

SECTION 14 – Disposal Considerations

Dispose in accordance with applicable waste disposal regulations. Do not allow material to enter storm or sanitary sewers, groundwater or soil. Releases may be reportable to local, state, or federal authorities. Disposal in an EPA approved landfill is recommended.

SECTION 15 – Transport information

This product is not regulated as a hazardous material for transportation purposes by any known authority.

SECTION 16 – Regulatory information

The following components are listed: Silicon carbide

SECTION 17 – Other Information

	HMIS Ratings
Health	0
Flammability	0
Physical Hazard	0

*** indicates possible chronic health effects from continuing exposures**

Steps to be taken in case material is released or spilled:

Reasonable care has been taken in the preparation of information contained in this Safety Data Sheet and the information is provided in good faith. Bay Carbon, Inc. assumes no responsibility as to the accuracy of information drawn from other sources. No warranty, expressed, or implied, is made. Information provided in this SDS has been prepared by competent and appropriately qualified and trained

persons according to the US OSHA Hazard Communication Standard and Canada Controlled Regulation (WHMIS). It is the user's obligation to determine the conditions of safe use for this product.

This document was originally issued at revision 0. It has been revised as follows:

Date	Revision Details	Revision Level
9/24/15	Generated SDS for Silicon Carbide	0