



MorganAM&T Material Safety Data Sheet

MSDS NA-MC111

Revision Date: 28 Sep 2011

First Issue: 28 Sep 2011

Section 1 – Products and Supplier

Generic product type: Silicon carbide products, grades that contain antimony

Uses (and restrictions): Customer applications of silicon carbide products

Supplier and contact information:

Morgan AM&T
251 Forrester Drive
Greenville, SC 29607 USA

+1(864)458-7777
08:00-17:00 local time M-F
www.morganamt.com

Section 2 – Hazard Identification

This MSDS covers finished silicon carbide parts and the base material from which a silicon carbide part may be made. In the case of a finished part, no hazards are expected; however, small amounts of dust created in shipping, handling and use may exhibit the hazards of the base material as described below. Dust produced by cutting or machining the base material will exhibit the hazards described below.

Short-term effects:

Dust from this material may irritate skin and eyes. Inhalation of dust may irritate the nose, throat and lungs. The presence of antimony in this material can make the dust more irritating than if it consisted of silicon carbide and carbon/graphite alone. Antimony can cause significant irritation to eyes, skin, and respiratory system, and to the digestive system if ingested. Avoid creating and breathing airborne dust.

Chronic health effects:

Repeated or prolonged exposure to elevated concentrations of airborne dust can irritate the respiratory system, especially as an aggravation to a pre-existing condition. Long-term inhalation of excessive amounts of dust may result in lung damage (pneumoconiosis). The presence of antimony in this material can possibly cause health effects that would not be caused by silicon carbide and carbon/graphite alone. Excessive exposure to antimony can damage the liver and kidneys. Avoid creating and breathing airborne dust.

Physical hazards:

Dust from this product may be electrically conductive and, if so, dust accumulations on electrical equipment can cause short circuits. Maintain good housekeeping.

Section 3 – Hazardous Components

Component	CAS Registry No.
Silicon Carbide	409-21-2
Antimony	7440-36-0

This material may also contain:	
Graphite	7782-42-5
Carbon	7440-44-0
Silicon	7440-21-3

Section 4 – First Aid Measures

First aid measures may be appropriate in cases of acute exposure to high concentrations of dust.

- Remove affected personnel to an exposure-free environment.
- Flush eyes with water for at least 15 minutes.
- Wash skin with soap and water.
- Remove contaminated clothing.

In response to chronic effects (see Section 2 above) treat the immediate symptoms and seek medical advice.

Section 5 – Fire Fighting Measures

This product is not very combustible, but may burn if exposed to high temperatures.

Extinguishing Media:

Use an extinguisher that is suitable for the surrounding fire.

Special Fire Fighting Procedures:

Use protective clothing and breathing equipment appropriate to the surrounding fire.

Unusual Fire and Explosion Hazards:

The small amounts of dust possibly generated from the handling and use of silicon carbide/carbon products would not be expected to create an airborne dust explosion hazard. Practice good housekeeping to prevent dust accumulations.

Flash Point: Not applicable

Flammable Limits: Not applicable

Section 6 – Accidental Release Measures

Sweep or vacuum spilled material and place into sealable containers. Avoid creating and breathing airborne dust. Dispose in accordance with applicable waste disposal regulations.

Section 7 – Handling and Storage

Practice good housekeeping to avoid the accumulation of dust in the workplace. Avoid creating and breathing airborne dust. Practice good hygiene: wash hands before eating, drinking or smoking and do not store food, or eat or drink, in areas where chemicals are handled.

Section 8 – Exposure Controls and Personal Protection

Exposure limits and guidelines:

Material	OSHA PEL 8-Hr TWA	ACGIH TLV 8-Hr TWA
Silicon Carbide	15 mg/m ³ (total) 5 mg/m ³ (respirable)	10 mg/m ³ (total) 3 mg/m ³ (respirable)
Antimony	0.5 mg/m ³	0.5 mg/m ³
Graphite	15 mg/m ³ (total) 5 mg/m ³ (respirable)	2.0 mg/m ³ (respirable)
Carbon	15 mg/m ³ (total) 5 mg/m ³ (respirable)	10 mg/m ³ (total) 3 mg/m ³ (respirable)
Silicon	15 mg/m ³ (total) 5 mg/m ³ (respirable)	None Established

Other jurisdictions may have exposure limits and control guidelines. Users are advised to consult and comply with local regulations where they exist.

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 if exposures exceed established limits.

General hygiene considerations:

Do not eat, drink or smoke when handling these products.
Do not store food or drink in areas where chemicals are handled.
Wash hands after handling these products.

Environmental exposure controls:

Use dust collection or HVAC filters to minimize release of airborne dust to outside air.

Section 9 – Physical and Chemical Properties

Appearance:	Solid, varying colors	Odor:	No odor
Melting Point:	Not applicable	Boiling Point:	Not applicable
Vapor Pressure:	Not applicable	Percent Volatile:	Not applicable
Vapor Density:	Not applicable	Evaporation Rate:	Not applicable
Water Solubility:	Insoluble	Specific Gravity:	Varies

Section 10 – Stability and Reactivity

This material is generally stable and non-reactive.

Section 11 – Toxicological Information

Additional toxicological information is available through the U.S. National Institute for Occupational Safety and Health (NIOSH) Registry of Toxic Effects of Chemical Substances (RTECS). See website: <http://www.cdc.gov/niosh/ipcsneng/nengrtec.html>.

Silicon Carbide RTECS # VW045000
 Antimony RTECS # CC4025000
 Graphite RTECS # MD9659600
 Carbon RTECS # FF5250100
 Silicon RTECS # VW0400000

Section 12 – Ecological Information

Silicon carbide, carbon, graphite and silicon are relatively inert and would be expected to be of negligible consequence in the environment. Antimony is an environmental pollutant.

Section 13 – Disposal Considerations

This product does not contain substances that could cause it to be hazardous waste under federal regulations in the United States, if disposed. Dispose in accordance with applicable waste disposal regulations.

Section 14 – Transport Information

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

Section 15 – Regulatory Information

All materials in these product grades are listed on the US Toxic Substances Control Act (TSCA) inventory.

Antimony is a CERCLA Hazardous Substance, if in powder form.

Antimony is subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act (also known as SARA Title III).



This product contains antimony. Under Canada Controlled Products Regulations (WHMIS) this product would be considered an “article” if used as a finished part, or may be classified as Class D, Division 2, Subdivision B if the material is cut or machined, releasing respirable dust.

Section 16 – Other Information

	HMIS Ratings
Health	2*
Flammability	1
Physical Hazard	0

Note that these hazard ratings relate to dust produced by cutting or machining this material. They do not relate to finished products.

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

This MSDS can be used for the base materials used to fabricate finished silicon carbide parts.

Reasonable care has been taken in the preparation of information contained in this Material Safety Data Sheet and the information is provided in good faith. Morgan AM&T assumes no responsibility as to the accuracy of information drawn from other sources. No warranty, expressed or implied, is made. Information provided in this MSDS has been prepared by competent and appropriately qualified and trained persons according to the US OSHA Hazard Communication Standard and Canada Controlled Products Regulations (WHMIS).