



SAFETY DATA SHEET CARBON & GRAPHITE PRODUCTS

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: Carbon and Graphite Products (Felt, Boards, & Machined Parts)
*Various grades, purity, and particle size

Other Names: Pan Carbon Felt, Pan Graphite Felt
Rayon Carbon Felt, Rayon Graphite Felt
Carbon Board, Graphite Board, Graphite Board Foil Layered
Machined Carbon and Graphite Parts

Product Code: Carbon/Graphite Products

Primary Use: Carbon and Graphite products, flexible or rigid, are used in various high temperature customer applications under vacuum or in protected atmospheres rated up to 5432°F (3000°C).

Secondary Use: Carbon and Graphite products, flexible or rigid, are used in various high temperature customer applications in oxidizing atmospheres rated up to 752°F(400°C).

Distributor / Manufacturer:

CeraMaterials
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Dingmans Ferry, PA 18328
Emergency Contact: Jerry Weinstein
Product Stewardship: 518.701.6722
E-Mail: sales@ceramaterials.com
www.ceramaterials.com

24hr Emergency Contact Info:

Poison Control Center: 877.671.4608
CHEMTREC US Transportation: 800.424.9300
CHEMTREC International Transportation: 703.741.5500



SECTION 2 - HAZARDS IDENTIFICATION

As a solid material, this product presents minimal hazards; however, dust created in shipping, handling, cutting, machining and use may exhibit the hazards of the materials as described below. Avoid creating and breathing airborne dust.

Classification.

The material contained in this product is not classified as hazardous under the Globally Harmonized System of Classification and Labelling and the US OSHA Hazard Communication Standard.

Signal word, symbols, hazard and precautionary statements.

Not applicable (Material is not classified as hazardous).

Other information about health hazards.

Dust from this materials may cause minor irritation of skin and eyes, primarily through mechanical abrasion. Repeated or prolonged exposure to elevated concentrations of any airborne dust can irritate or harm the respiratory system, especially as an aggravation to a pre-existing condition. Avoid creating and breathing airborne dust.

Other information about physical hazards.

Carbon / Graphite dust and fibers are electrically conductive and dust accumulations on electrical equipment can cause short circuits resulting in electrical shock, fire, or damage to equipment. Dust from this product contains graphite and may cause slippery conditions. Accumulations of dust may present a combustible dust hazard. Maintain good housekeeping.

Hazards not otherwise classified: Not available.

SECTION 3 - COMPOSITION

<u>Chemical & Common Name</u>	<u>CAS#</u>	<u>% By Weight</u>
Graphite	7782-42-5	0 - 100%
Carbon	7440-44-0	0 - 100%
Resin impregnated mtl*	Not applicable	0 - 10%

*Only applicable for Machined Graphite Parts and/or rigid boards



SECTION 4 - FIRST AID MEASURES

Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion.

Inhalation:

Remove affected personnel to an exposure-free environment.

Skin & Eye

Flush eyes with water. Wash skin with soap and water.

Ingestion:

Not applicable, not expected.

Inhalation:

Move exposed person to fresh air. Keep person warm and at rest. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if adverse health effects persist or are severe.

Indication of need for medical attention and special treatment.

Not applicable, not expected.

Notes to Physicians:

Treatment is symptomatic and supportive.

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.

Combustion products.

When burned carbon / graphite releases carbon dioxide (and possibly 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.



Unusual fire and explosion hazards.

As is the case with any combustible dust, concentrations of airborne carbon/graphite dust can present a dust explosion hazard. If cutting or machining this material, use dust collection and practice good housekeeping to prevent dust accumulations and prevent situations where substantial amounts of dust can become airborne.

Flash point.

Not applicable

Flammable limits.

Not applicable.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

General Procedures.

Use appropriate personal protective equipment. Vacuum or sweep up 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

Handling and Storage.

Practice good housekeeping to avoid the accumulation of dust in the workplace. Avoid creating and breathing airborne dust. Practice good hygiene. As a 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 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

OSHA permissible exposure limit (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available.

Engineering controls.

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



Individual protection measures, such as personal protective equipment.

Personal protective equipment:

Use NIOSH-approved respiratory protective equipment (for example, an N-95 dust mask) if exposures exceed established limits.

General Hygiene considerations:

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

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)

Chemical Name	EXPOSURE LIMITS			
	Type		ppm	mg/m ³
Graphite	OSHA PEL	TWA	Not available ^[1]	15 ^[1]
			Not available ^[2]	5 ^[2]
	ACGIH TLV	TWA	Not available ^[1]	2 ^[1]
Carbon	OSHA PEL	TWA	Not available ^[1]	15 ^[1]
			Not available ^[2]	5 ^[2]
	ACGIH TLV	TWA	Not available ^[1]	10 ^[1]
			Not available ^[2]	3 ^[2]

Footnotes:

1. Total Dust

2. Respirable fraction

* Other jurisdictions may have different exposure limits & control guidelines. Users are advised to consult & comply with local regulations

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Black/ Gray	LEL/UEL:	Not applicable
Odor:	No odor	Vapor pressure:	Not applicable
Odor threshold:	Not applicable	Vapor density:	Not applicable
pH:	Not applicable	Relative density:	Not applicable
Melting point:	Not applicable	Water Solubility:	Insoluble
Boiling point:	Not applicable	Viscosity:	Not applicable
Flash point:	Not applicable	Autoignition temperature:	Not applicable
Evaporation rate:	Not applicable	Decomposition temperature:	Not applicable
Flammability:	Not applicable	Partition coefficient (n-octanol/water):	Not applicable



SECTION 10 - STABILITY AND REACTIVITY

This material is stable and non-reactive.

SECTION 11 - TOXICOLOGICAL INFORMATION

None of the materials in this product are listed as a carcinogen by the International Agency for Research on Cancer (IARC), US OSHA or the US Department of Health and Human Services National Toxicology Program (NTP).

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: <https://www.cdc.gov/niosh/npg/npgdrtec.html>

Graphite RTECS # MD9659600

Carbon RTECS # FF5250100

SECTION 12 - ECOLOGICAL INFORMATION

Carbon/graphite is relatively inert and would be expected to be of negligible consequence in the environment.

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal:

This product does not contain substances that could cause it to be hazardous waste, if disposed. The generation of waste should be avoided or minimized wherever possible. Dispose in accordance with applicable waste disposal regulations. Any processing, use, alteration or chemical additions to the product, as purchased, may alter the disposal requirements. Under Federal regulations, it is the waste generator's responsibility to properly characterize a waste material, to determine if it is a "hazardous" waste. Check local, regional, state or provincial regulations to identify all applicable disposal requirements.

SECTION 14 - TRANSPORT INFORMATION

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



SECTION 15 - REGULATORY INFORMATION

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

SECTION 16 - OTHER INFORMATION

Hazardous Materials Identification System (HMIS) Hazard Rating:

Health	1*
Flammability	1
Physical Hazard	0
Personal Protective Equipment	X**

*Indicates possible chronic health effects from continuing exposures

**To be determined by the user

Effective Date: August 1, 2011
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SDS Prepared By: CeraMaterials

Disclaimer

The information presented herein is presented in good faith and believed to be accurate as the effective date of this Safety Data Sheet. Employers may use this SDS to supplement other information gathered by them in their efforts to assure the health and safety of their employees and the proper use of the product. This summary of the relevant data reflects professional judgement; employers should note that information perceived to be less relevant has not been included in this SDS. Therefore, given the summary nature of this document, CeraMaterials does not extend any warranty (expressed or implied), assume any responsibility, or make any representation regarding the completeness of this information or its suitability for the purposes envisioned by the user.