

GC Electronics
 1801 Morgan Street
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Product Name: Graphite Lubricant
 MSDS Number: 216
 Revision Date: 7-14-11
 Supersedes Date: 2/5/07

MATERIAL SAFETY DATA SHEET

Complies with OSHA Hazard Communication Standard 29 CFR 1910.1200

Trade Name:	Natural Graphite: 85-98 Carbon	Emergency Contact:	Chemtrec
Product Type:	Lubricant	Phone (24 hours):	(800) 424-9300
Product Name:	Graphite Lubricant		
Part Number(s):	19-821		

Section 1 - Identification of Product

<u>NFPA Hazard Rating:</u>	<u>HMIS:</u>		
Health 1	Health 1	Least	0
Flammability 1	Flammability 0	Slight	1
Reactivity 0	Reactivity 0	Moderate	2
	Personal Protection E	High	3
		Extreme	E

Section 2 - Hazardous Ingredients

Hazardous Component (Specific Chemical Identity COMMON NAME(S))	CAS#	ACGIH TWA	CONTROL REFERENCES	%
Natural Flake Graphite	7782-42-5	2.0 mg/m ³	3mg/m ³ for nuisance dust	100
Free Crystalline Silica Quartz* (as respirable dust)	14808-60-7	0.025mg/m ³	ACGIH Threshold Limit Values	0.1 – 4.0%

*This product contains a chemical known to the State of California to cause cancer.

Note: Tests performed on natural graphites have shown quartz levels ranging from 2% to 10%.

Not Classified according EU regulations

Powder/air mixtures can cause dust explosion (see chapter 4)

Free Crystalline silica: Human Hazards: Free Crystalline Silica may be present. Silica is an inhalation hazard when present as respirable particulates. IARC Monograph Vol 68, 1997 conclude that there is sufficient evidence that inhaled Crystalline Silica causes cancer in humans. IARC Classification: Group 1

Section 3 - Physical Data

Color:	Gray to Black	Evaporation Rate:	N/A
Odor:	None	pH	6-8
Boiling Point:	4827C	Decomposition Temp:	Above 400C
Vapor Pressure (mm Hg):	N/A	Material State:	Solid free flowing flakes or powder
Vapor Density (Air = 1):	N/A	% Volatile (By Wt.):	0 – 1%
Solubility in Water:	Insoluble	Auto Ignition:	Above 500C
Specific Gravity (H ₂ O = 1):	2.26	Dust Explosion Class:	ST1=KST>0-200 bar.m/s
Melting Point:	Sublimates at 3652C		

Section 4 - Fire & Explosion Hazard Data

Natural Graphite is not flammable under normal conditions.

Flash Point (Method Used):	Not Applicable. When exposed to extremely high energy ignition sources fine graphite and carbon powder can form explosive mixtures with air. Avoid contact between graphite or carbon dust clouds and high energy ignition sources.
Flammable Limits:	LEL: N/A UEL: N/A
Extinguishing Media:	Dry chemical extinguisher, water
Special Fire Fighting Procedures:	Self-contained air pack, gloves, safety goggles
Unusual Fire and Explosion Hazards:	None
NFP Rating:	010

Section 5 - Health Hazard Data

Route(s) of Entry	
Inhalation:	Yes
Skin:	No
Ingestion:	Yes
Health Hazards (acute and chronic):	Inhalation of dust may result in irritation of mucous membranes. Long term inhalation may result in silicosis or pneumoconiosis.
Carcinogenicity	
NTP:	No
IARC Monographs:	Yes (silica as quartz), animal sufficient evidence, human sufficient evidence.
OSHA regulated:	No
Signs and Symptoms of Exposure:	Not known other than that mentioned in the health hazards.
Medical Conditions	
Generally aggravated by Exposure:	No medical conditions are known to be aggravated by this product.
Emergency First Aid Procedures	
Eyes:	Rinse with tepid water until eyes are clear of particulates. Seek medical attention if irritation persists.

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Skin: Wash exposed skin with soap and water. If irritation persists get medical attention.

Ingestion: Natural graphite is not known to be toxic by ingestion. However, ingestion may cause digestive-system blockage.

Inhalation: Remove patient to particulate-free environment. Wear approved dust mask to avoid breathing dust. Seek medical attention.

Toxicological Information: None available

Section 6 - Reactivity Data

Stability: Material is stable. Will not polymerize.

Conditions to Avoid: Avoid contact with oxidizing agents.

Incompatibility (Materials to avoid): Oxidizing agents.

Hazardous Decomposition Products: Carbon Dioxide (CO₂) and Carbon Monoxide (CO).

Section 7 - Spill or Leak Procedures

Steps to be taken if material is released or spilled: Graphite causes slippery conditions. Carefully sweep up material and wash floor with soap and water. Containerize for solid waste disposal.

Personal Precautions: Dust mask, safety goggles, conventional gloves.

Ecological Information: None Available.

Disposal Considerations: Dispose of in accordance with local, state and federal regulations.

Methods for Clean Up: Conventional sweep or vacuum. Avoid dusting conditions.

Section 8 - Special Protection Information

Respiratory Protection (specify type): Wear NIOSH/MSHA approved mask for chemical products if ACGIH, OSHA and/or TWA limits will be exceeded.

Engineering Measures: Use adequate dust collections to maintain dust levels below the control or recommended values.

Ventilation: Local Exhaust: Not necessary except to stay below exposure limits
Special: None
Mechanical (General) (Recommended) Necessary to keep down dust
Other: None

Protective gloves: Conventional work gloves and clothing.

Eye/Face Protection: Safety glasses, goggles, or face shield. Eyewash station should be available.

Other Protective Clothing Or Equipment: Safety shower should be available.

Work/Hygienic Practices: Wash thoroughly with soap and water after handling this product.

Section 9 – Special Precautions

Handling: Graphite causes slippery conditions. Graphite, being conductive, can cause short circuits and other electrical malfunctions. Avoid contact between natural graphite and electrical circuitry. Keep containers tightly closed when not in use. Handle carefully to avoid spills.

Storage: Store all carbonaceous materials in a dry location, away from oxidizing agents.

Work/Hygienic Practices: Wash exposed skin with soap and water after handling this product.

Section 10 - Regulatory Information

All components of this product are on the TSCA inventory.
Warning: This product contains a chemical known to the state of California to cause cancer:
Free Crystalline Silica (Quartz): CAS # 14808-60-7
EEC Marketing and Labeling Symbol: Not Known
Risk Phases: Graphite: R20 (harmful by inhalation)
Silica: R49 (may cause cancer by inhalation)
Safety Phases: S14 (keep away from oxidizers), S22 (do not breath dust),
S23 (avoid contact with eyes), S39 (wear eye protection)

Ecological Assessment: Natural graphite is inert and insoluble. To the best of our knowledge, natural graphite should not present any environmental hazards any more serious than any inert, insoluble dust or granular substance.

Section 11 - Other Information

Transport Information: Not Regulated
Shipping Name: Natural Graphite
Hazard Class: Non-Hazardous
Subsidiary Class: None
UN Number: None
Packing Group: None
Transport Label Required: No label required
Additional Transport Information: Technical Name (N.O.S.): Natural Graphite

Unk. = Unknown
N/A = Not applicable
Prop = Proprietary
Nav = Not available
N/D = Not determined
N/E = Not established

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