

MATERIAL SAFETY DATA SHEET

Section 1. Chemical product and company identification

Product Name: Graphite Dry Powder
Synonym: G Plus, G1
Manufacturer: AMEREX CORPORATION
Internet Address: www.amerex-fire.com
Address: 7595 Gadsden Highway
P.O. Box 81
Trussville, AL 35173-0081
Telephone: (205) 655-3271
Emergency Contacts: Chemtrec 1(800) 424-9300 or
(703) 527-3887
Revised: April, 2009

Section 2. Hazard identification and emergency overview

Emergency overview: dark gray to black odorless fine powder.

Adverse health effects and symptoms: moderate irritant to the respiratory system and eyes; mild irritant to mucous membranes and skin. Symptoms of inhalation include coughing, shortness of breath, production of black sputum. Chronic exposure may cause pneumoconiosis, fibrotic disease, or aggravate existing pulmonary disease.

Exposure guidelines:

Ingredients	OSHA PEL	ACGIH TLV	DFG MAK *
Graphite	PNOC** 15 mg/m ³	PNOC 2 mg/m ³	PNOC 6 mg/m ³

*German regulatory limits ** PNOC = particulate not otherwise classified (called PNOR, particulate not otherwise regulated, by OSHA). All values are 8-hour time weighted average concentrations.

Hazard symbols: WHMIS (Canadian workplace hazardous materials identification system)

None

Section 3. Composition/information on ingredients

Name/Compound	Weight %	CAS #
Graphite, synthetic	> 99	7782-42-5

Section 4. First Aid Measures

Eye Exposure: irrigate eyes at eye wash station and repeat for 15 minutes or until pain free. Seek medical attention if irritation develops or persists, or if visual changes occur.

Skin Exposure: in case of contact, wash with plenty of soap and water. Use a skin moisturizer. Seek medical attention if irritation develops or persists.

Inhalation: If respiratory irritation or distress occurs remove victim to fresh air. Seek medical attention if irritation develops or persists.

Ingestion: If victim is conscious and alert, give 2-3 glasses of water to drink and do not induce vomiting. Seek immediate medical attention. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. If vomiting occurs and the victim is conscious, give water to further dilute the chemical.

Medical conditions possibly aggravated by exposure: Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema, or bronchitis. Skin contact may aggravate existing skin disease. Chronic overexposure may cause pneumoconiosis (“dusty lung” disease).

Section 5. Fire fighting measures

Extinguishing media: water, carbon dioxide.

Insensitive to mechanical impact; can generate and conduct a static discharge.

HMIS (hazardous materials identification system) rankings: health: 1, fire: 0, reactivity: 0, personal protective equipment: appropriate respirator above exposure limit, and eye protection (see Section 8)

Section 6. Accidental release measures

Clean up released material using vacuum or wet sweep and shovel to minimize generation of dust. Wear appropriate respiratory protection. Bag and drum for disposal. If product is used and/or contaminated, use PPE and containment appropriate to the nature of the mixture. Prevent material from entering waterways.

Section 7. Handling and storage

Avoid skin, eye, or respiratory exposure. Use appropriate PPE when using or maintaining extinguisher, and wash thoroughly after handling (see Section 8). Keep product in original container or extinguisher. Contents are under pressure – inspect for extinguisher rust periodically to insure container integrity. Do not mix with other extinguishing agents. Store away from ignition sources and direct sunlight.

Section 8. Exposure controls/ personal protection

Respiratory protection: use N-95 dust mask or air-purifying respirator (APR) with HEPA cartridges or canisters.

Eye protection: wear chemical goggles.

Skin protection: if product is expected to contact skin, use nitrile, latex, or similar gloves and coveralls, both to avoid contact and frostbite. Good personal hygiene practices essential, such as avoiding food, tobacco products, or other hand-to-mouth contact when handling. Wash thoroughly after handling.

Section 9. Physical and chemical properties

Appearance: dark gray to black, odorless, fine powder. Feels slippery.
Specific gravity: ~ 2.2 – 2.3

Melting/freezing point: ~6600° F
Vapor density: not applicable
Solubility: insoluble
Non-flammable solid
Flash point: none
Vapor pressure: < 1 mm Hg
pH: not applicable
No explosive or oxidizing properties

Section 10. Stability and reactivity

Stability: stable

Incompatibles: strong oxidizers such as chlorates and nitrates, potassium.

Decomposition products: heat of fire may release carbon monoxide and carbon dioxide.

Possibility of hazardous reactions: product is a good conductor of electricity. Product will not polymerize.

Section 11. Toxicological information

Acute toxicity: Graphite LD₅₀ (rat): unknown, testing has not been conducted. Target organs in man: respiratory system. This product is a mild irritant to epithelial tissue, (eyes, mucous membranes, skin) and may aggravate dermatitis. No information was found indicating the product causes sensitization.

Chronic toxicity: Pneumoconiosis, or “dusty lung” disease, may result from chronic exposure to any dust.

Reproductive toxicity: This product’s ingredients are not known to have reproductive or teratogenic effects.

Section 12. Ecological information

Ecotoxicity: graphite is non-toxic, however, as silt may degrade aquatic habitat.

Persistence/
Degradability: degrades slowly via methylation

Bioaccumulation: little, non-soluble

Mobility in soil: poor

Section 13. Disposal considerations

This product is not a RCRA characteristically hazardous or listed hazardous waste. Dispose of according to state or local laws, which may be more restrictive than federal laws or regulations. Used product may be altered or contaminated, creating different disposal considerations.

Section 14. Transportation information

This product is not defined as a hazardous material under U.S. Department of Transportation (DOT) 49 CFR 172, or by Transport Canada "Transportation of Dangerous Goods" regulations.

Section 15. Regulatory information

International Inventory Status:

Graphite is on the following inventories

Country(ies)	Agency	Status
United States of America	TSCA	Yes
Canada	DSL	Yes
Europe	EINECS/ELINCS	Yes
South Korea	KECL	Yes
Japan	MITI	No

European Risk and Safety phrases:

EU Classification:	Irritant.	
R Phrases:	20	Harmful if inhaled.
	36	Irritating to eyes
S Phrases:	23/24/25	Avoid inhalation, skin, and eye contact
	26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	36	Wear suitable protective clothing.
	38	Where ventilation is insufficient, wear suitable respiratory equipment

U.S. federal regulatory information:

The component in this product is not under SARA reporting requirements or has SARA threshold planning quantities (TPQs) or CERCLA reportable quantities (RQs), or is regulated under TSCA 8(d).

State regulatory information:

The component in this product is not covered under any specific State regulations, as denoted below:

- Alaska** - Designated Toxic and Hazardous Substances: None
- California** – Permissible Exposure Limits for Chemical Contaminants: None
- Florida** – Substance List: None
- Illinois** – Toxic Substance List: None
- Kansas** – Section 302/303 List: None
- Massachusetts** – Substance List: None
- Minnesota** – List of Hazardous Substances: None
- Missouri** – Employer Information/Toxic Substance List: None
- New Jersey** – Right to Know Hazardous Substance List: None
- North Dakota** – List of Hazardous Chemicals, Reportable Quantities: None
- Pennsylvania** – Hazardous Substance List: None
- Rhode Island** – Hazardous Substance List: None
- Texas** – Hazardous Substance List: No
- West Virginia** – Hazardous Substance List: None
- Wisconsin** – Toxic and Hazardous Substances: None

California Proposition 65: Graphite is not on the California Proposition 65 lists.

Section 16. Other information

This MSDS conforms to requirements under U.S., U.K., Canadian, Australian, and EU regulations or standards, and conforms to the proposed 2003 ANSI Z400.1 format.

The information herein is given in good faith but no warranty, expressed or implied, is made.

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