

# Material Safety Data Sheet

## Graphite Powder

ACC# 10561

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Graphite Powder

**Catalog Numbers:** G67 500, G67500

**Synonyms:** Black lead, crystallized carbon, mineral carbon, plumbago, CI 77265

**Company Identification:**

Fisher Scientific

1 Reagent Lane

Fairlawn, NJ 07410

**For information, call:** 201-796-7100

**Emergency Number:** 201-796-7100

**For CHEMTREC assistance, call:** 800-424-9300

**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7782-42-5	GRAPHITE	>99	231-955-3
14808-60-7	Quartz	<1	238-878-4

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: green, blue, steel gray or black. **Caution!** May cause eye and skin irritation. May cause respiratory and digestive tract irritation. Contains trace amounts of quartz which may lead to fibrotic lung disease, silicosis or cancer.

**Target Organs:** Lungs.

#### Potential Health Effects

**Eye:** Causes eye irritation. May cause conjunctivitis.

**Skin:** May cause skin irritation.

**Ingestion:** Ingestion of large amounts may cause gastrointestinal irritation.

**Inhalation:** Dust is irritating to the respiratory tract.

**Chronic:** Prolonged exposure to respirable crystalline quartz may cause delayed lung injury/fibrosis (silicosis).

### Section 4 - First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid.

**Skin:** Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

**Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

**Inhalation:** Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:** Treat symptomatically and supportively.

**Antidote:** None reported.

## Section 5 - Firefighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Dust can be an explosion hazard when exposed to heat or flame. Flammable solid. Can be easily ignited and burns vigorously.

**Extinguishing Media:** For small fires, use water spray, dry chemical, carbon dioxide or chemical foam.

**Autoignition Temperature:** 1346 deg F (730.00 deg C)

**Flash Point:** Not available.

**NFPA Rating:** Not published. Explosion Limits, Lower: Not available. Upper: Not available.

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions.

## Section 7 - Handling and Storage

**Handling:** Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

**Storage:** Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Keep from contact with oxidizing materials.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use adequate ventilation to keep airborne concentrations low.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
GRAPHITE	all forms except graphite fibers, respirable dust: 2 mg/m <sup>3</sup>	respirable dust: 2.5 mg/m <sup>3</sup> TWA 1250 mg/m <sup>3</sup> IDLH	see Table Z-3
Quartz	0.1 mg/m <sup>3</sup> (this TLV is for the respirable fraction of dust)	as respirable dust: 0.05 mg/m <sup>3</sup> TWA; NIOSH Potential Occupational Carcinogen - see Appendix A Potential NIOSH carcinogen. [25 mg/m <sup>3</sup>	

		(cristobalite, tridymite); 50 mg/m <sup>3</sup> (quartz, tripoli)]	
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**OSHA Vacated PELs:** GRAPHITE: respirable dust: 2.5 mg/m<sup>3</sup> TWA Quartz: respirable dust: 0.1 mg/m<sup>3</sup> TWA

**Personal Protective Equipment**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to minimize contact with skin.

**Respirators:** Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

**Section 9 - Physical and Chemical Properties**

**Physical State:** Solid

**Appearance:** green, blue, steel gray or black

**Odor:** odorless

**pH:** Not available.

**Vapor Pressure:** Negligible.

**Vapor Density:** Not available.

**Evaporation Rate:**

**Viscosity:** Not applicable.

**Boiling Point:** 7592 deg F

**Freezing/Melting Point:**6606-6687F

**Decomposition Temperature:**Not available.

**Solubility:** Insoluble in water.

**Specific Gravity/Density:**2.09-2.25

**Molecular Formula:**C

**Molecular Weight:**

**Section 10 - Stability and Reactivity**

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Incompatible materials, ignition sources, dust generation, moisture, excess heat.

**Incompatibilities with Other Materials:** May react vigorously or violently when mixed with strong oxidizing agents such as chlorates, bromates and nitrates, especially when heated. Incompatible with chlorinated paraffins, Lead oxide, manganese oxide, iron oxide, liquid oxygen, oils, and moisture. . chlorinetrifluoride, fluoride and potassium superoxide. Reacts at 300C with potassium, sodium, rubidium and cesium to give intercalation compounds. These compounds ignite in air and may react explosively with water.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** Has not been reported.

**Section 11 - Toxicological Information**

**RTECS#:**

**CAS#** 7782-42-5: MD9659600

**CAS#** 14808-60-7: VV7330000

**LD50/LC50:**

Not available.  
Not available.

**Carcinogenicity:**

CAS# 7782-42-5: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA. CAS# 14808-60-7:

**California:** carcinogen (airborne particles of respirable size) - initial date 10/1/88 (liste

**NIOSH:** occupational carcinogen

**NTP:** Suspect carcinogen

**OSHA:** Possible Select carcinogen

**IARC:** Group 1 carcinogen

**Epidemiology:** No data available.

**Teratogenicity:** No data available.

**Reproductive Effects:** No data available.

**Neurotoxicity:** No data available.

**Mutagenicity:** No data available.

**Other Studies:** No data available.

Section 12 - Ecological Information

**Ecotoxicity:** Not available.

**Environmental Fate:** Not available.

**Physical/Chemical:** Not available.

**Other:** Not available.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

**RCRA D-Series Maximum Concentration of Contaminants:** None listed.

**RCRA D-Series Chronic Toxicity Reference Levels:** None listed.

**RCRA F-Series:** None listed.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
<b>Shipping Name:</b>	No information available.	No information available.	No information available.	No information available.	No information available.
<b>Hazard Class:</b>					
<b>UN Number:</b>					
<b>Packing Group:</b>					
<b>Additional Info:</b>					FLASHPOINT 8 C

Section 15 - Regulatory Information

**US FEDERAL**

**TSCA**

CAS# 7782-42-5 is listed on the TSCA inventory.

CAS# 14808-60-7 is listed on the TSCA inventory.

**Health & Safety Reporting List**

None of the chemicals are on the Health & Safety Reporting List.

**Chemical Test Rules**

None of the chemicals in this product are under a Chemical Test Rule.

**Section 12b**

None of the chemicals are listed under TSCA Section 12b.

**TSCA Significant New Use Rule**

None of the chemicals in this material have a SNUR under TSCA.

**SARA****Section 302 (RQ)**

None of the chemicals in this material have an RQ.

**Section 302 (TPQ)**

None of the chemicals in this product have a TPQ.

**SARA Codes**

CAS # 14808-60-7: chronic.

**Section 313**

No chemicals are reportable under Section 313.

**Clean Air Act:**

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

**Clean Water Act:**

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:**

None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**

CAS# 7782-42-5 can be found on the following state right to know lists: California, Florida, Pennsylvania, Minnesota, Massachusetts.

CAS# 14808-60-7 can be found on the following state right to know lists: New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

California No Significant Risk Level: None of the chemicals in this product are listed.

**European/International Regulations****European Labeling in Accordance with EC Directives****Hazard Symbols:**

Not available.

**Risk Phrases:****Safety Phrases:****WGK (Water Danger/Protection)**

CAS# 7782-42-5: 0

CAS# 14808-60-7: No information available.

**Canada**

CAS# 7782-42-5 is listed on Canada's DSL/NDSL List.

CAS# 14808-60-7 is listed on Canada's DSL/NDSL List.

This product has a WHMIS classification of D2A.

CAS# 7782-42-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 14808-60-7 is not listed on Canada's Ingredient Disclosure List.

**Exposure Limits**

CAS# 7782-42-5: OEL-AUSTRALIA:TWA 10 mg/m<sup>3</sup> OEL-AUSTRALIA:TWA 2.5 mg/m<sup>3</sup> OEL-BELGIUM:TWA 10 mg/m<sup>3</sup> OEL-BELGIUM:TWA 2.5 mg/m<sup>3</sup> OEL-FINLAND:

TWA 5 mg/m<sup>3</sup> OEL-FRANCE:TWA 10 mg/m<sup>3</sup> OEL-GERMANY:TWA 6 mg/m<sup>3</sup> OEL-THE NETHERLANDS:TWA 10 mg/m<sup>3</sup> OEL-THE NETHERLANDS:TWA 5 mg/m<sup>3</sup> OEL-POLAND :TWA 2 mg/m<sup>3</sup> OEL-SWEDEN:TWA 5 mg/m<sup>3</sup> OEL-SWITZERLAND:TWA 2.5 mg/m<sup>3</sup> OEL-UNITED KINGDOM:TWA 10 mg/m<sup>3</sup> OEL-UNITED KINGDOM:TWA 5 mg/m<sup>3</sup> OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND , SINGAPORE, VIETNAM check ACGI TLV  
CAS# 14808-60-7: OEL-BELGIUM:TWA 0.1 mg/m<sup>3</sup> OEL-DENMARK:TWA 0.1 mg/m<sup>3</sup> OEL-FINLAND:TWA 0.2 mg/m<sup>3</sup> OEL-GERMANY:TWA 0.15 mg/m<sup>3</sup> OEL-RUSSIA:STEL 14 mg/m<sup>3</sup> OEL-SWEDEN:TWA 0.1 mg/m<sup>3</sup> OEL-SWITZERLAND:TWA 0.15 mg/m<sup>3</sup> OEL-THAILAND:TWA 10 mg/m<sup>3</sup> (resp. dust) OEL-THAILAND:TWA 30 mg/m<sup>3</sup> (total dust) OEL-UNITED KINGDOM:TWA 0.1 mg/m<sup>3</sup> (resp. dust) OEL-UNITED KINGDOM:TWA 0.3 mg/m<sup>3</sup> (total dust) OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

## Section 16 - Additional Information

**MSDS Creation Date:** 10/11/1995

**Revision #6 Date:** 12/12/1997

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.*