

Safety Data Sheet



Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • Natural Graphite

Product Code • 8901, 8924, 8935

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Recarburizer, Friction reduction applications, Lubricants, Coatings, Oilfield uses, Conductive additive

1.3 Details of the supplier of the safety data sheet

Manufacturer • Superior Graphite
10 S. Riverside Plaza
Chicago, IL 60606
United States

Telephone (General) • 312-559-2999 - (8-5 CST, M-F)

1.4 Emergency telephone number

Manufacturer • 1-800-424-9300 - For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night

Manufacturer • +1 703-527-3887 - Outside USA and Canada (collect calls accepted)

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Not classified

2.2 Label Elements

CLP
Hazard statements • No label element(s) required

DSD/DPD
Risk phrases • No label element(s) required

2.3 Other Hazards

CLP • May form combustible dust concentrations in air.
According to Regulation (EC) No. 1272/2008 (CLP) this material is not considered hazardous.

DSD/DPD • May form combustible dust concentrations in air.
This product is not considered dangerous under the European Directive 67/548/EEC

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Combustible Dust

2.2 Label elements

OSHA HCS 2012

WARNING**Hazard statements** • May form combustible dust concentrations in air.**2.3 Other hazards**

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required.

2.3 Other hazardsWHMIS • May form combustible dust concentrations in air.
In Canada, the product mentioned above is not considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).**Section 3 - Composition/Information on Ingredients****3.1 Substances**

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Graphite	CAS:7782-42-5 EC Number:231-955-3	>= 60%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Quartz	CAS:14808-60-7 EC Number:238-878-4	0% TO 4.2%	NDA	EU DSD/DPD: T R48/20; Carc. 1, R49 EU CLP: STOT RE 1 (Lungs, Inhl), H372; Carc. 1A, H350 OSHA HCS 2012: STOT RE 1 (Lungs, Inhl); Carc. 1A	<0.1% respirable

See Section 16 for full text of H-statements and R-phrases.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- Inhalation**
- Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. If breathing is difficult get medical attention.
- Skin**
- IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If irritation develops and persists, get medical attention.
- Eye**
- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. Get medical attention.
- Ingestion**
- Do NOT induce vomiting. Rinse mouth. Do not give anything by mouth to an unconscious person. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

4.4 Other information

- Call 911 or emergency medical service. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

Section 5 - Firefighting Measures

5.1 Extinguishing media

- Suitable Extinguishing Media**
- LARGE FIRE: Water spray, fog or regular foam.
SMALL FIRES: Dry chemical, CO₂, water spray or regular foam.

- Unsuitable Extinguishing Media**
- No data available.

5.2 Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- Dust dispersed in air in sufficient concentrations and in the presence of an ignition source is an explosion hazard.

- Hazardous Combustion Products**
- Graphite will burn, giving off carbon dioxide and potentially carbon monoxide.

5.3 Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.
LARGE FIRES: Move containers from fire area if you can do it without risk.
LARGE FIRES: Do not scatter spilled material with high pressure water streams.
LARGE FIRES: Dike fire-control water for later disposal.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- Do not touch or walk through spilled material.

- Emergency Procedures**
- Use normal clean up procedures.

6.2 Environmental precautions

- LARGE SPILLS: Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Avoid dispersal of dust in the air.
SMALL SPILLS: Use clean non-sparking tools to collect material and place it into loosely covered plastic containers for later disposal.
Wash floor with soap and water.
LARGE SPILLS: Cover powder spill with plastic sheet or tarp to minimize spreading.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Avoid accumulation of dust. Good housekeeping practices should be in place to prevent accumulation of dusts on surfaces. Do not use in areas without adequate ventilation. Graphite is conductive and can cause short circuits and other electrical malfunctions. Graphite causes slippery conditions. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Ventilate enclosed areas. Keep container closed.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines				
	Result	ACGIH	NIOSH	OSHA
Graphite	TWAs	2 mg/m ³ TWA (all forms except graphite fibers, respirable fraction)	2.5 mg/m ³ TWA (natural, respirable dust)	15 mg/m ³ TWA (synthetic, total dust); 5 mg/m ³ TWA (synthetic, respirable fraction)

Exposure Limits Supplemental

OSHA

- Graphite (7782-42-5): **Mineral Dusts:** (15 mppcf TWA (natural))

8.2 Exposure controls

Engineering Measures/Controls

- Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values. All dust control equipment should contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Make sure that dust handling systems are designed to prevent escape of dust into the work area and that they do not leak.

Personal Protective Equipment

Respiratory

- For limited exposure use an N95 dust mask. For prolonged exposure use an air-purifying respirator with high efficiency particulate air (HEPA) filters. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear protective eyewear (goggles, face shield, or safety glasses). Eye wash station should be available.

Hands

- Wear protective gloves - cotton gloves.

Skin/Body

- Wear long sleeves and/or protective coveralls.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties**9.1 Information on Physical and Chemical Properties**

Material Description			
Physical Form	Solid	Appearance/Description	Black colored solid with no odor.
Color	Silver, gray to black.	Odor	No odor.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 2.25 Water=1	Density	18.7763 lbs/gal
Water Solubility	Data lacking	Viscosity	Data lacking
Explosive Properties	Data lacking	Oxidizing Properties:	Data lacking
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			
Flash Point	Data lacking	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Data lacking		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity**10.1 Reactivity**

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Will not occur.

10.4 Conditions to avoid

- Accumulation of dusts - mixtures of graphite dust and air are explosive when ignited.

10.5 Incompatible materials

- Strong oxidizing agents, acids, and alkalis

10.6 Hazardous decomposition products

- Hazardous decomposition may occur on burning, generating carbon dioxide and carbon monoxide, .

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Quartz (2% TO 12%)	14808-60-7	Multi-dose Toxicity: Inhalation-Hamster TCLo • 3 mg/m ³ 6 Hour(s) 78 Week(s)-Intermittent; <i>Lungs, Thorax, or Respiration:Fibrosis (interstitial); Lungs, Thorax, or Respiration:Changes in lung weight</i>

GHS Properties	Classification
Acute toxicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Carcinogenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Skin corrosion/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Skin sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-RE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-SE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Serious eye damage/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking

Potential Health Effects

Inhalation

- Acute (Immediate)**
 - Exposure to dust may cause irritation.
- Chronic (Delayed)**
 - No data available

Skin

- Acute (Immediate)**
 - Exposure to dust may cause mechanical irritation.
- Chronic (Delayed)**
 - No data available.

Eye

- Acute (Immediate)**
 - Exposure to dust may cause mechanical irritation. Excessive concentrations of

nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes.

Chronic (Delayed)

- No data available.

Ingestion

Acute (Immediate)

- Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes.

Chronic (Delayed)

- No data available.

Carcinogenic Effects

- This material contains Quartz which is considered a carcinogen, however this material as a whole is not classified as a carcinogen.

Carcinogenic Effects			
	CAS	IARC	NTP
Quartz	14808-60-7	Group 1-Carcinogenic	Known Human Carcinogen

Key to abbreviations

TC = Toxic Concentration

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not regulated	NDA	NDA	NDA

TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not regulated	NDA	NDA	NDA

14.6 Special precautions for user • None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Pressure(Sudden Release of)

Inventory					
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS
Graphite	7782-42-5	Yes	No	Yes	No
Quartz	14808-60-7	Yes	No	Yes	No

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Quartz	14808-60-7	D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Silica, crystalline, encapsulated on Health Canada's WHMIS Division website.)
• Graphite	7782-42-5	D2A (natural); D2B (synthetic)

Canada - WHMIS - Ingredient Disclosure List

• Quartz	14808-60-7	1 %
• Graphite	7782-42-5	Not Listed

Environment

Canada - CEPA - Priority Substances List

• Quartz	14808-60-7	Not Listed
• Graphite	7782-42-5	Not Listed

Europe

Other

EU - Hazardous Substances Restricted or Prohibited in Electrical Equipment (2011/65/EU) (RoHS)

• Quartz	14808-60-7	Not Listed
• Graphite	7782-42-5	Not Listed

Japan

Environment**Inventory - Japan - Industrial Safety and Health Law Substances (ISHL)**

• Quartz	14808-60-7	Not Listed
• Graphite	7782-42-5	Not Listed

Other**Japan - Chemical Substance Control Law (CSCL) - Monitoring Chemical Substances**

• Quartz	14808-60-7	Not Listed
• Graphite	7782-42-5	Not Listed

Japan - Poisonous and Deleterious Substances - Substances Not Considered Deleterious

• Quartz	14808-60-7	Not Listed
• Graphite	7782-42-5	Not Listed

Japan - Poisonous and Deleterious Substances - Substances Not Considered Poisonous

• Quartz	14808-60-7	Not Listed
• Graphite	7782-42-5	Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Quartz	14808-60-7	Not Listed
• Graphite	7782-42-5	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Quartz	14808-60-7	Not Listed
• Graphite	7782-42-5	Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Quartz	14808-60-7	Not Listed
• Graphite	7782-42-5	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Quartz	14808-60-7	Not Listed
• Graphite	7782-42-5	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Quartz	14808-60-7	Not Listed
• Graphite	7782-42-5	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Quartz	14808-60-7	Not Listed
• Graphite	7782-42-5	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Quartz	14808-60-7	Not Listed
• Graphite	7782-42-5	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Quartz	14808-60-7	Not Listed
• Graphite	7782-42-5	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Quartz	14808-60-7	Not Listed
• Graphite	7782-42-5	Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• Quartz	14808-60-7	carcinogen, initial date 10/1/88 (airborne particles of respirable size)
• Graphite	7782-42-5	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Quartz	14808-60-7	Not Listed
• Graphite	7782-42-5	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Quartz	14808-60-7	Not Listed
• Graphite	7782-42-5	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Quartz	14808-60-7	Not Listed
• Graphite	7782-42-5	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Quartz	14808-60-7	Not Listed
• Graphite	7782-42-5	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Quartz	14808-60-7	Not Listed
• Graphite	7782-42-5	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

15.3 Other Information

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

Section 16 - Other Information

Relevant Phrases (code & full text)

- H350 - May cause cancer.
- H372 - Causes damage to organs through prolonged or repeated exposure.
- R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- R49 - May cause cancer by inhalation.

Last Revision Date

- 9/July/2015

Preparation Date

- 06/May/2018

Disclaimer/Statement of Liability

- The information contained herein is based on data available. However, no warranty is expressed or implied regarding the accuracy of the data or the results obtained from the use thereof. Because the information contained herein may be applied under conditions beyond our control, we assume no responsibility for its use.

Key to abbreviations

NDA = No data available
