

Safety Data Sheet

**Section 1: Identification of the Substance/Mixture and of the Company/Undertaking****1.1 Product identifier**

Product Name	• Synthetic Graphite
CAS Number	• 7782-42-5
Product Code	• 5926, 5933, 5935, 5032, 5939
EC Number	• 231-955-3
REACH Registration Number	• Graphite 01-2119486977-12-0032
Product Description	• Synthetic Graphite. • This product is registered but exempt under the exemption Annex IV & V.

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

Relevant identified use(s)	• Friction reduction applications, Lubricants, Coatings, Oilfield uses, Conductive additive
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1.3 Details of the supplier of the safety data sheet

Manufacturer	• Superior Graphite 10 S. Riverside Plaza Chicago, IL 60606 United States
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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 2015/830]

2.1 Classification of the substance or mixture

CLP	• Not classified
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2.2 Label Elements

CLP	Hazard statements • No label element(s) required
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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.
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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 2015

2.1 Classification of the substance or mixture

WHMIS 2015 • Combustible Dusts 1

2.2 Label elements

WHMIS 2015

WARNING

Hazard statements • May form combustible dust concentrations in air.

Precautionary statements

2.3 Other hazards

WHMIS 2015 • In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

2.4 Other information

- Graphite is non-flammable in bulk form, but combustible in finely divided form. Mixtures of graphite dust and air may be explosive when ignited. Dust may be irritating to skin, eyes, and respiratory tract. Repeated and prolonged inhalation of dust may cause pneumoconiosis.

Section 3 - Composition/Information on Ingredients

3.1 Substances

Composition				
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive
Graphite	CAS:7782-42-5 EC Number:231-955-3	100%	NDA	EU CLP: Not Classified OSHA HCS 2012: Comb. Dust WHMIS 2015: Comb. Dust

3.2 Mixtures

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

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

- Avoid contact with material that generates respirable dust unless proper PPE is used. Do not walk through spilled material.

Emergency Procedures

- Use normal clean up procedures. Ventilate closed spaces before entering.

6.2 Environmental precautions

- Avoid run off to waterways and sewers.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust.

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

- Use only with adequate ventilation. Use appropriate Personal Protective Equipment (PPE) Do not breathe dust. Avoid accumulation of dust. Good housekeeping practices should be in place to prevent accumulation of dusts on surfaces. If dusts are generated during processing eliminate ignition sources. Take precautionary measures against static charges. 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/m3 TWA (all forms except graphite fibers, respirable particulate matter)	2.5 mg/m3 TWA (natural, respirable dust)	15 mg/m3 TWA (synthetic, total dust); 5 mg/m3 TWA (synthetic, respirable fraction)

Exposure Limits Supplemental

OSHA

- Graphite (7782-42-5): **Mineral Dusts:** (15 mppcf TWA (natural))
- Graphite as Particulates not otherwise classified (PNOC): **Mineral Dusts:** (15 mppcf TWA (respirable fraction); 5 mg/m3 TWA (respirable fraction); 50 mppcf TWA (total dust); 15 mg/m3 TWA (total dust))

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 .
Skin/Body	• Wear long sleeves and/or protective coveralls.
Environmental Exposure Controls	• Follow best practice for site management and disposal of waste. Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

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 Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Silver, gray to 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	5000 °F(2760 °C)
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	Not explosive.	Oxidizing Properties:	Not an oxidizer.
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)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Key to abbreviations

NDA = No Data Available

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, releasing carbon dioxide and carbon monoxide, .

Section 11 - Toxicological Information

11.1 Information on toxicological effects

GHS Properties	Classification
Acute toxicity	EU/CLP • Acute Toxicity - Dermal - Data lacking; Acute Toxicity - Inhalation - Data lacking; Acute Toxicity - Oral - Data lacking OSHA HCS 2012 • Acute Toxicity - Dermal - Data lacking; Acute Toxicity - Inhalation - Data lacking; Acute Toxicity - Oral - Data lacking WHMIS 2015 • Data lacking
Skin corrosion/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Serious eye damage/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Skin sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Carcinogenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
STOT-SE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking

STOT-RE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
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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.

Section 12 - Ecological Information

12.1 Toxicity

- Data lacking.

12.2 Persistence and degradability

- Data lacking.

12.3 Bioaccumulative potential

- Data lacking.

12.4 Mobility in Soil

- Data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been conducted for this material.

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 and the IBC Code • Not relevant.

Section 15 - Regulatory Information

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

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

Canada

Labor

Canada - WHMIS 1988 - Classifications of Substances

- | | | |
|--|-----------|--------------------------------|
| • Graphite | 7782-42-5 | D2A (natural); D2B (synthetic) |
| • Graphite as Particulates not otherwise classified (PNOC) | | Not Listed |

Canada - WHMIS 1988 - Ingredient Disclosure List

- | | | |
|--|-----------|------------|
| • Graphite | 7782-42-5 | Not Listed |
| • Graphite as Particulates not otherwise classified (PNOC) | | Not Listed |

Environment

Canada - CEPA - Priority Substances List

- | | | |
|--|-----------|------------|
| • Graphite | 7782-42-5 | Not Listed |
| • Graphite as Particulates not otherwise classified (PNOC) | | Not Listed |

Europe

Other

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

- | | | |
|--|-----------|------------|
| • Graphite | 7782-42-5 | Not Listed |
| • Graphite as Particulates not otherwise classified (PNOC) | | Not Listed |

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

- | | | |
|--|-----------|------------|
| • Graphite | 7782-42-5 | Not Listed |
| • Graphite as Particulates not otherwise classified (PNOC) | | Not Listed |

U.S. - OSHA - Specifically Regulated Chemicals

• Graphite	7782-42-5	Not Listed
• Graphite as Particulates not otherwise classified (PNOC)		Not Listed

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

• Graphite	7782-42-5	Not Listed
• Graphite as Particulates not otherwise classified (PNOC)		Not Listed

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

• Graphite	7782-42-5	Not Listed
• Graphite as Particulates not otherwise classified (PNOC)		Not Listed

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

• Graphite	7782-42-5	Not Listed
• Graphite as Particulates not otherwise classified (PNOC)		Not Listed

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

• Graphite	7782-42-5	Not Listed
• Graphite as Particulates not otherwise classified (PNOC)		Not Listed

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

• Graphite	7782-42-5	Not Listed
• Graphite as Particulates not otherwise classified (PNOC)		Not Listed

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

• Graphite	7782-42-5	Not Listed
• Graphite as Particulates not otherwise classified (PNOC)		Not Listed

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

• Graphite	7782-42-5	Not Listed
• Graphite as Particulates not otherwise classified (PNOC)		Not Listed

Inventory - United States - Section 8(b) Inventory (TSCA) - PMN Number to EPA Accession Number Link

• Graphite	7782-42-5	Not Listed
• Graphite as Particulates not otherwise classified (PNOC)		Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Graphite	7782-42-5	Not Listed
• Graphite as Particulates not otherwise classified (PNOC)		Not Listed

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

• Graphite	7782-42-5	Not Listed
• Graphite as Particulates not otherwise classified (PNOC)		Not Listed

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

• Graphite	7782-42-5	Not Listed
• Graphite as Particulates not otherwise classified (PNOC)		Not Listed

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

• Graphite	7782-42-5	Not Listed
• Graphite as Particulates not otherwise classified (PNOC)		Not Listed

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

• Graphite	7782-42-5	Not Listed
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- Graphite as Particulates not otherwise classified (PNOC)

Not Listed

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

- Graphite
- Graphite as Particulates not otherwise classified (PNOC)

7782-42-5

Not Listed

Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Revision Date

- 23/October/2018

Preparation Date

- 01/June/2015

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