

## 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** •

#### 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 hazards**

WHMIS

- 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<br>EC Number:231-955-3  | >= 60%     | NDA       | EU DSD/DPD: Not Classified<br>EU CLP: Not Classified<br>OSHA HCS 2012: Not Classified   | NDA              |
| Quartz        | CAS:14808-60-7<br>EC Number:238-878-4 | 0% TO 4.2% | NDA       | EU DSD/DPD: T R48/20; Carc. 1, R49<br>EU CLP: STOT RE 1 (Lungs, Inhl), H372; Carc. 1A, H350<br>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

- |                   |   |
|-------------------|---|
| <b>Inhalation</b> | • 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. |
| <b>Skin</b>       | • 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.               |
| <b>Eye</b>        | • In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. Get medical attention.  |
| <b>Ingestion</b>  | • 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

- |                           |  |
|---------------------------|--|
| <b>Notes to Physician</b> | • 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

- |                                       |  |
|---------------------------------------|--|
| <b>Suitable Extinguishing Media</b>   | • LARGE FIRE: Water spray, fog or regular foam.<br>SMALL FIRES: Dry chemical, CO <sub>2</sub> , water spray or regular foam. |
| <b>Unsuitable Extinguishing Media</b> | • No data available.   |

### 5.2 Special hazards arising from the substance or mixture

- |   |  |
|---|--|
| <b>Unusual Fire and Explosion Hazards</b> | • Dust dispersed in air in sufficient concentrations and in the presence of an ignition source is an explosion hazard. |
| <b>Hazardous Combustion Products</b>      | • 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

- |                             |  |
|-----------------------------|--|
| <b>Personal Precautions</b> | • Do not touch or walk through spilled material. |
| <b>Emergency Procedures</b> | • 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 <sup>3</sup> TWA (all forms except graphite fibers, respirable fraction) | 2.5 mg/m <sup>3</sup> TWA (natural, respirable dust) | 15 mg/m <sup>3</sup> TWA (synthetic, total dust); 5 mg/m <sup>3</sup> 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 | <b>Multi-dose Toxicity:</b> Inhalation-Hamster TCLo • 3 mg/m <sup>3</sup> 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<br>OSHA HCS 2012 • Data lacking |
| Aspiration Hazard             | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking |
| Carcinogenicity               | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking |
| Germ Cell Mutagenicity        | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking |
| Skin corrosion/Irritation     | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking |
| Skin sensitization            | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking |
| STOT-RE                       | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking |
| STOT-SE                       | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking |
| Toxicity for Reproduction     | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking |
| Respiratory sensitization     | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking |
| Serious eye damage/Irritation | EU/CLP • Data lacking<br>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                        |

|                  |     |               |     |     |     |
|------------------|-----|---------------|-----|-----|-----|
| <b>TDG</b>       | NDA | NotRegulated  | NDA | NDA | NDA |
| <b>IMO/IMDG</b>  | NDA | Not regulated | NDA | NDA | NDA |
| <b>IATA/ICAO</b> | 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
- Graphite

14808-60-7

1 %

7782-42-5

Not Listed

**Environment****Canada - CEPA - Priority Substances List**

- Quartz
- Graphite

14808-60-7

Not Listed

7782-42-5

Not Listed

## Europe

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

- Quartz
- Graphite

14808-60-7

Not Listed

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<br>(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

- 08/May/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

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