# Safety Data Sheet

ED08

Revision Date 11/11/2024

## 1. Product and Company Identification

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| **Product Information** | |
| Trade Name | |
| Product Description | Water-based graphite coating |
| Recommended Uses | Lubricant, protective coating |
| **Company** | Southwestern Graphite, Inc. (a division of Asbury Carbons Inc.)<br>2564 Highway 12<br>DeQuincy, LA 70633 |
| **Emergency Telephone** | US: 1-800-255-3924; International: +01-813-248-0585; China: 400-120-0751;<br>Brazil: 0-800-591-6042; India: 000-800-100-4086; Mexico: 01-800-099-0731<br>ChemTel contract number: MIS0001931 (collect calls accepted) |
| Information Phone | 1-908-537-2155 |
| Website | www.asbury.com |

## 2. Hazards Identification

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| **Classification** | Skin Irritant – Category 2<br>Eye Irritant – Category 2 |
| **Hazard Summary** | Alkaline.<br>Irritating to eyes and skin. Spilled material is slippery. |
| **Labeling** | |
| Hazard Pictogram(s) |  |
| Signal Word(s) | Warning |
| Hazard Statement(s) | H315: Causes skin irritation.<br>H319: Causes serious eye irritation. |
| Precautionary Statement(s) | P262: Do not get in eyes, on skin, or on clothing.<br>P280: Wear protective gloves/protective clothing/eye protection/face protection.<br>P303+P361+P353: IF ON SKIN (or hair): Remove all contaminated clothing. Rinse skin with water/shower.<br>P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |

## 3. Composition / Information on Ingredients

| Components | CAS No. | EINECS No. | Weight % | Hazard Statement(s) |
|---|---|---|---|---|
| Water | 7732-18-5 | 231-791-2 | 66% | -- |
| Graphite | 7782-42-5 | 231-955-3 | 20-30% | -- |
| Silicic acid, sodium salt | 1344-09-8 | 215-687-4 | 1 - 10% | H315: Causes skin irritation.<br>H319: Causes serious eye irritation. |

## 4. First Aid Measures

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| **Inhalation** | Remove patient from exposure, keep warm and at rest. Obtain medical attention. |
| **Skin Contact** | Wash affected skin with plenty of water. If symptoms develop, obtain medical attention. |
| **Eye contact** | Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes. Obtain immediate medical attention. |

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| **Ingestion** | Do not induce vomiting. Wash out mouth with water and give 200-300 ml (half a pint) of water to drink. Obtain medical attention. |

## 5. Fire Fighting Measures

| **Graphite is not flammable under normal conditions** | |
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| **Extinguishing media** | Dry chemical extinguisher, water, sand, limestone powder |
| **Special fire hazards** | At temperatures above 1500 C, graphite reacts with substances containing oxygen, including water and carbon dioxide. In case of intensely hot fire events, use sand to cover and isolate graphite. |
| **Products of Combustion** | Carbon dioxide (CO2), carbon monoxide (CO). |
| **Advice for Fire Fighters** | Use self contained air pack, gloves, safety goggles |
| **NFP Rating** | 110 |

## 6. Accidental Release Measures

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| **Personal precautions** | Wear approved dust mask, safety goggles or face shield, and suitable protective clothing. Graphite is electrically conductive and any cleanup methods should avoid contacting graphite with electrical circuitry. |
| **Environmental precautions** | Do not allow to enter drains, sewers or watercourses. Advise authorities if spillage has entered water course or sewer or has contaminated soil or vegetation. |
| **Methods for cleaning up** | Caution - spillages may be slippery. Contain spillages with sand, earth or any suitable adsorbent material. Transfer to a container for disposal or recovery. |

## 7. Handling and Storage

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| **Precautions for safe handling** | Avoid contact with eyes, skin and clothing.<br>Avoid generation of mist. Provide adequate ventilation.<br>Emergency shower and eye wash facilities should be readily available.<br>Graphite is a conductor of electricity. Avoid contact with electrical circuitry. |
| **Fire and explosion protection** | No special instructions - material is not combustible. |
| **Storage precautions** | Do not allow material to freeze. Keep container tightly closed. Provide an adequate bund wall. Unsuitable containers: aluminum. |

## 8. Exposure Controls/ Personal Protection

**Ingredients with control parameters / occupational exposure limits**

| Component | CAS No. | TWA | Control Reference |
|---|---|---|---|
| Water | 7732-18-5 | -- | -- |
| Graphite | 7782-42-5 | 2.0 mg/m$^3$ | Respirable dust, 2014 ACGIH Handbook |
| Silicic acid, sodium salt | 1344-09-8 | 2.0 mg/m$^3$ | Recommended by analogy with sodium hydroxide. |

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| **Engineering controls** | Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (dilution and local exhaust), and control of process conditions. |
| **Respiratory Protection** | Use approved dust mask, type N95 recommended. |
| **Eye Protection** | Chemical goggles. |
| **Skin Protection** | Wear suitable protective clothing, gloves, and overalls. Plastic or rubber gloves. |
| **Hygiene measures** | Wear personal protective equipment. Do not eat, drink or smoke at the work place. Product spilled on pedestrian surfaces may pose a significant slip hazard. |

## 9. Physical and Chemical Properties

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| **Appearance** | Gray to black liquid | **Lower explosion limit** | n/a |
| **Odor** | Mild | **Upper explosion limit** | n/a |
| **pH** | 10.5 – 11.5 | **Vapor pressure** | As water |
| **Freezing point** | 32°F (0°C) | **Vapor density** | As water |
| **Boiling point** | 212°F (100°C) | **Water solubility** | Dispersible |
| **Flash point** | n/a | **Partition coefficient: n-octanol/water** | No data available |

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| **Evaporation rate** | As water | **Autoignition temperature** | No data available |
| **Specific gravity** | 1.21 g/ml | **% volatile by weight** | 66% |

## 10. Stability and Reactivity

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| **Chemical stability** | Stable. Will not polymerize or self react spontaneously. |
| **Possibility of hazardous reactions** | When arc welding vessels containing aqueous solutions of this material, take care to control any explosion risk from hydrogen evolved by electrolysis. Aqueous solutions can react with aluminium, zinc, tin and their alloys evolving hydrogen gas which can form an explosive mixture with air. |
| **Conditions to avoid** | Graphite will begin to oxidize at temperatures above 450 C. |
| **Materials to avoid** | Oxidizing agents |
| **Hazardous decomposition products** | Carbon Dioxide ($CO_2$), Carbon Monoxide (CO) |

## 11. Toxicological Information

**Acute Toxicity:**

| Test (species) | Results | Remarks |
|---|---|---|
| Ingestion (rat) | LD50 3400 mg/kg bw<br>Material will cause irritation. | All symptoms of acute toxicity are due to high alkalinity. |
| Inhalation (rat) | LC50 > 2000 mg/m3<br>Mist is irritant to the respiratory tract. | All symptoms of acute toxicity are due to high alkalinity. |
| Eye contact (rabbit) | Material will cause irritation. | |
| Skin contact (rat) | LD50 >5000 mg/kg bw<br>Material will cause irritation. | |
| Sensitization (mouse) | Not sensitizing | |

**Chronic Toxicity:**

| Test (species) | Results | Remarks |
|---|---|---|
| Mutagenicity (in vitro) | Negative | No evidence of genotoxicity. |
| Carcinogenicity | Not carcinogenic | No structural alerts. IARC, NTP, OSHA, ACGIH do not list this product as known or suspected carcinogen. |
| Reproductive toxicity (rat) | NOAEL > 1000 mg/kg bw | OECD 422 |
| STOT - single exposure | Not classified | |
| STOT - repeated exposure | Not classified<br>NOAEL oral (rat) >159 mg/kg bw/d | |

## 12. Ecological Information

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| **Persistence and degradability** | Graphite will not degrade under normal conditions. Graphite is stable, unreactive in water under ambient conditions, and is insoluble.<br>Soluble silicates are inorganic and, upon dilution, rapidly depolymerise into molecular species indistinguishable from natural dissolved silica. |
| **Bioaccumulation potential** | No evidence of bioaccumulation. |
| **Mobility** | Not expected to be mobile in soil. |
| **Other effects** | The alkalinity of this material may have a local effect on ecosystems sensitive to changes in pH. |

**Aquatic Toxicity:**

| Test | Effect dose | Exposure time | Method | Remarks |
|---|---|---|---|---|
| Acute fish toxicity | LC50 > 100 mg/l | 96 hour | OECD 203 | No adverse reaction observed. |
| Acute daphnia toxicity | EC50 > 100 mg/l | 48 hour | OECD 202 | No adverse reaction observed. |
| Acute algae toxicity | EC50 > 100 mg/l | 72 hour | OECD 201 | No adverse reaction observed. |

## 13. Disposal Considerations

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| **Material Disposal** | Dispose of in a manner which conforms to local, state and national regulations. Product is non-hazardous but disposal of waste should be handled in a responsible matter. |
| **Packaging Disposal** | Packaging should be completely emptied of contents and disposed of in a manner specified by the recycler/regional disposal contractor. |

## 14. Transport Information

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| **UN number** | Not regulated |
| **Proper shipping name** | n/a |
| **Transport hazard class** | n/a |
| **Packing group** | n/a |
| **Marine pollutant?** | Not classified as a marine pollutant |

## 15. Regulatory Information

| **Inventory Information (graphite):** | |
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| US TSCA | Yes |
| Canada DSL | Yes |
| Canada NDSL | No |
| Australian AICS | Yes |
| Korean ECL | Yes |
| Asia PAC | Yes |
| Swiss Giftliste 1 | Yes #G8422 |
| IECSC | Yes |
| PICCS | Yes |
| New Zealand NZLoC | Yes |
| **RoHS:** Graphite is compliant with the EU RoHS directive | |
| **WEEE:** Graphite is compliant with the EU waste electrical and electronic equipment directive | |

## 16. Other Information

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| The information contained herein is accurate to the best of our knowledge. Asbury Carbons makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances. | |
| **NFPA Classification** | Health Hazard: 1<br>Fire Hazard: 1<br>Reactivity Hazard: 0 |