



according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: October 17, 2019

1 Identification

· Product identifier

· Trade name: Graphokote 462

· Other means of identification: No other identifiers

· Recommended use and restriction on use

· Recommended use: Lubricant

· Restrictions on use: No relevant information available.

Details of the supplier of the Safety Data Sheet

· Manufacturer/Supplier:

Asbury Carbons, Inc. PO Box 144 405 Old Main Street Asbury, NJ 08802 USA

+1 908-537-2155

· Emergency telephone number:

ChemTel Inc. (800)255-3924 (North America) +1 (813)248-0585 (International) 1-300-954-583 (Australia) 0-800-591-6042 (Brazil) 400-120-0751 (China) 000-800-100-4086 (India) 800-099-0731 (Mexico)

2 Hazard(s) identification

· Classification of the substance or mixture

The product is not classified as hazardous according to the Globally Harmonized System (GHS).

- Label elements
- · GHS label elements Not regulated.
- · Hazard pictograms: Not regulated.
- · Signal word: Not regulated.
- · Hazard statements: Not regulated.
- · Other hazards There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

| · Componen | ts: | | |
|------------|--------------------------------|--|--------|
| 7782-42-5 | Graphite | | 20-30% |
| 68611-20-1 | Octadecanoic acid, chlorinated | Acute Tox. 3, H301 Skin Irrit. 2, H315 Eye Irrit. 2B, H320 | <10% |
| 1317-38-0 | Copper oxide | | <2.5% |

· Additional information: For the wording of the listed Hazard Statements, refer to section 16.





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4 First-aid measures

Description of first aid measures

· After inhalation:

Supply fresh air; consult doctor in case of complaints.

Provide oxygen treatment if affected person has difficulty breathing.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

Seek medical treatment in case of complaints.

· After eye contact:

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

A person vomiting while lying on their back should be turned onto their side.

Most important symptoms and effects, both acute and delayed:

May cause gastro-intestinal irritation if ingested.

Slight irritant effect on eyes.

· Indication of any immediate medical attention and special treatment needed: Treat symptomatically.

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents:

Water fog / haze

Foam

Gaseous extinguishing agents

Carbon dioxide

Fire-extinguishing powder

- · For safety reasons unsuitable extinguishing agents: Water stream.
- · Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

- Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Particular danger of slipping on leaked/spilled product.

Use personal protective equipment as required.

Ensure adequate ventilation.

· Environmental precautions

Avoid release to the environment.

Prevent from spreading (e.g. by damming-in or oil barriers).

Inform respective authorities in case of seepage into water course or sewage system.

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Methods and material for containment and cleaning up

Towel or mop up material and collect in a suitable container.

For larger spills, add sawdust, chalk or other inert binding material, then sweep up and discard.

Send for recovery or disposal in suitable receptacles.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- ·Handling
- · Precautions for safe handling:

Avoid splashes or spray in enclosed areas.

Use only in well ventilated areas.

Open and handle receptacle with care.

Keep out of reach of children.

- · Conditions for safe storage, including any incompatibilities
- · Requirements to be met by storerooms and receptacles:

Store in cool, dry conditions in well sealed receptacles.

Avoid storage near extreme heat, ignition sources or open flame.

· Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidizing agents.

· Specific end use(s) No relevant information available.

8 Exposure controls/personal protection

· Control parameters

| Components with limit values that require monitoring at the workplace: | | |
|--|--|--|
| 7782-42-5 Graphite | | |
| PEL (USA) | Long-term value: 15 mppcf* mg/m³ *impinger samples counted by light field techn. | |
| REL (USA) | Long-term value: 2.5* mg/m³ *respirable dust | |
| TLV (USA) | Long-term value: 2* mg/m³ all forms except graphite fibers;*resp. fraction | |
| EL (Canada) | Long-term value: 2 mg/m³ respirable | |
| EV (Canada) | Long-term value: 2 mg/m³ respirable | |
| LMPE (Mexico) | Long-term value: 2* mg/m³ *fracción respirable | |

- Exposure controls
- · General protective and hygienic measures:

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The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid breathing mist, vapors, or spray.

Avoid contact with the eyes.

- · Engineering controls: No relevant information available.
- · Breathing equipment:

Wear appropriate NIOSH respirator when ventilation is inadequate and occupational exposure limits are exceeded.

· Protection of hands:

Gloves are advised for repeated or prolonged contact.

Wear protective gloves to handle contents of damaged or leaking units.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- Eye protection: Follow relevant national guidelines concerning the use of protective eyewear.
- · Body protection: Protective work clothing
- · Limitation and supervision of exposure into the environment

No relevant information available.

· Risk management measures No relevant information available.

| Physical and chemical prope | erties | |
|---------------------------------|---|--|
| Information on basic physical a | and chemical properties | |
| Appearance: | | |
| Form: | Liquid | |
| Color: | Grey to Black. | |
| · Odor: | Mild | |
| Oderathar shelds | Petroleum-like | |
| · Odor threshold: | Not determined. | |
| · pH-value: | Not determined. | |
| · Melting point/Melting range: | Not determined. | |
| Boiling point/Boiling range: | >200 °C (>392 °F) | |
| · Flash point: | >200 °C (>392 °F) | |
| Flammability (solid, gaseous): | Not applicable. | |
| Auto-ignition temperature: | Not determined. | |
| Decomposition temperature: | Not determined. | |
| Danger of explosion: | Product does not present an explosion hazard. | |
| Explosion limits | | |
| Lower: | Not determined. | |
| Upper: | Not determined. | |
| Oxidizing properties: | Non-oxidizing. | |
| · Vapor pressure: | Not determined. | |
| Density: | | |
| Relative density: | 1.14 | |
| Vapor density: | Not determined. | |

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Evaporation rate: Not determined.

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity

Dynamic: Not determined. **Kinematic:** Not determined.

• Other information No relevant information available.

10 Stability and reactivity

- · Reactivity: No relevant information available.
- Chemical stability:
- Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

- · Possibility of hazardous reactions Reacts with strong oxidizing agents.
- · Conditions to avoid Excessive heat.
- · Incompatible materials Oxidizers
- · Hazardous decomposition products

Under fire conditions only:

Carbon monoxide and carbon dioxide

Copper oxides.

11 Toxicological information

- Information on toxicological effects
- · Acute toxicity: Based on available data, the classification criteria are not met.
- LD/LC50 values that are relevant for classification: None.
- · Primary irritant effect:
- On the skin: Based on available data, the classification criteria are not met.
- · On the eye: Based on available data, the classification criteria are not met.
- Sensitization: Based on available data, the classification criteria are not met.
- · IARC (International Agency for Research on Cancer):

Present in trace quantities.

| 14808-60-7 | Quartz (SiO2) | 1 |
|------------|-----------------|----|
| 75-56-9 | propylene oxide | 2B |

NTP (National Toxicology Program):

Present in trace quantities.

| 14808-60-7 | Quartz (SiO2) | K | |
|------------|-----------------|---|--|
| 75-56-9 | propylene oxide | R | |

· OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

· Probable route(s) of exposure:

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Ingestion. Inhalation.

Eye contact.

Skin contact.

- Skiii Contact.
- · Germ cell mutagenicity: Based on available data, the classification criteria are not met.
- · Carcinogenicity: Based on available data, the classification criteria are not met.
- · Reproductive toxicity: Based on available data, the classification criteria are not met.
- STOT-single exposure: Based on available data, the classification criteria are not met.
- · STOT-repeated exposure: Based on available data, the classification criteria are not met.
- · Aspiration hazard: Based on available data, the classification criteria are not met.

12 Ecological information

- · Toxicity
- · Aquatic toxicity Very toxic to aquatic life.
- · Persistence and degradability No relevant information available.
- · Bioaccumulative potential: No relevant information available.
- Mobility in soil: No relevant information available.
- · Other adverse effects No relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Contact waste processors for recycling information.

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

- Uncleaned packagings
- · Recommendation: Disposal must be made according to official regulations.

| UN-Number | |
|------------------------------|--|
| DOT, ADR/RID/ADN, IMDG, IATA | UN3082 |
| UN proper shipping name | |
| DOT, IATA | Environmentally hazardous substance, liquid, n.o. (Copper oxide) |
| ADR/RID/ADN, IMDG | ENVIRONMENTALLY HAZARDOUS SUBSTANCI LIQUID, N.O.S. (Copper oxide) |

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(Cont'd. of page 6) · DOT, IMDG, IATA · Class 9 · Label 9 ADR/RID/ADN · Class 9 (M6) · Label · Packing group · DOT, ADR/RID/ADN, IMDG, IATA Ш · Environmental hazards · Marine pollutant: Yes (DOT) Symbol (fish and tree) Special precautions for user Warning: Miscellaneous dangerous substances and articles · Danger code (Kemler): 90 · EMS Number: F-A,S-F Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. Transport/Additional information: Not regulated when carried in single or combination packaging containing a net quantity of 5 L or less for liquids or 5 kg or less for solids per the following: DOT: 171.4(c)(2) ADR: SP 375 IMDG: 2.10.2.7 IATA: special provision A197

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- · United States (USA)
- ·SARA

· DOT

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Labeling as a Marine Pollutant is only required for bulk single package shipments. Bulk packaging consists of a maximum capacity of greater than 450 L (119 gallons) for a liquid and a maximum net mass greater than 400 kg (882 pounds) for a solid. (See 171.4(c))





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|--|---------------------|
| · Section 302 (extremely hazardous substances): | |
| None of the ingredients are listed. | |
| · Section 355 (extremely hazardous substances): | |
| None of the ingredients are listed. | |
| · Section 313 (Specific toxic chemical listings): | |
| 1317-38-0 Copper oxide | |
| TSCA (Toxic Substances Control Act) | |
| All ingredients are listed or exempt. | |
| · Proposition 65 (California) | |
| · Chemicals known to cause cancer: | |
| Present in trace quantities. | |
| 14808-60-7 Quartz (SiO2) | |
| 75-56-9 propylene oxide | |
| Chemicals known to cause developmental toxicity for females: | |
| None of the ingredients are listed. | |
| · Chemicals known to cause developmental toxicity for males: | |
| None of the ingredients are listed. | |
| · Chemicals known to cause developmental toxicity: | |
| None of the ingredients are listed. | |
| · EPA (Environmental Protection Agency): | |
| None of the ingredients are listed. | |
| · IARC (International Agency for Research on Cancer): | |
| Present in trace quantities. | |
| 14808-60-7 Quartz (SiO2) | 1 |
| 75-56-9 propylene oxide | 2B |
| · Canadian Domestic Substances List (DSL): | |
| All ingredients are listed or exempt. | |

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

OSHA: Occupational Safety & Health Administration

Acute Tox. 3: Acute toxicity – Category 3

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B

· Sources

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Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by: ChemTel Inc. 1305 North Florida Avenue

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