

# Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 regulations

Printing date: October 27, 2017

Revision: October 27, 2017

## 1 Identification

- **Product identifier**
- **Trade name:** SHD Graphite Conductive Paint
- **Product code:** 8112
- **Other means of identification:** SDS # SHD-001
- **Recommended use and restriction on use**
- **Recommended use:** Paint
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**  
 Sherri Haab Designs  
 2476 Shorewood Drive  
 Saratoga Springs, UT 84045  
 (801)592-6007  
 Sherrihaab.com
- **Emergency telephone number:**  
 ChemTel Inc.  
 (800)255-3924 (North America)  
 +1 (813)248-0585 (International)

## 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.
- **Precautionary 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

### · Components:

7782-42-5	graphite	10-20%
1333-86-4	carbon black	1-5%
111-76-2	2-butoxyethanol ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319 Flam. Liq. 4, H227	1-5%

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9084-06-4	Alkyl naphthalene sulfonate, sodium salt Eye Irrit. 2B, H320; Combustible Dust	0.1-1%
151-21-3	sodium dodecyl sulphate ⚠ Eye Dam. 1, H318 ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315	0.1-1%

· **Additional information:**

For the wording of the listed Hazard Statements refer to section 16.

Non-classification as a carcinogen is based on non-inhalable form of product. IARC listings for carbon black note that the substance must be respirable.

## 4 First-aid measures

· **Description of first aid measures**

· **After inhalation:**

Respiration of particulates is unlikely during normal usage.

Supply fresh air; consult doctor in case of complaints.

· **After skin contact:**

Immediately remove any clothing soiled by the product.

Immediately wash with water and soap and rinse thoroughly.

If skin irritation or rash occurs: Get medical advice/attention.

· **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:** Do not induce vomiting; immediately call for medical help.

· **Most important symptoms and effects, both acute and delayed:**

Slight irritant effect on skin and mucous membranes.

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

Fire-extinguishing powder

Carbon dioxide

Foam

· **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.

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## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Use respiratory protective device against the effects of fumes/dust/aerosol.  
Use personal protective equipment as required.  
Ensure adequate ventilation.

- **Environmental precautions** Avoid release to the environment.

- **Methods and material for containment and cleaning up**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
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:**

Keep out of reach of children.  
Avoid contact with the eyes and skin.  
Use only in well ventilated areas.

- **Information about protection against explosions and fires:** No special measures required.

- **Conditions for safe storage, including any incompatibilities**

- **Storage**

- **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.

- **Further information about storage conditions:** Do not freeze.

- **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:**

**111-76-2 2-butoxyethanol**

PEL (USA)	Long-term value: 240 mg/m <sup>3</sup> , 50 ppm Skin
REL (USA)	Long-term value: 24 mg/m <sup>3</sup> , 5 ppm Skin

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TLV (USA)	Long-term value: 97 mg/m <sup>3</sup> , 20 ppm BEI
EL (Canada)	Long-term value: 20 ppm
EV (Canada)	Long-term value: 20 ppm Skin
LMPE (Mexico)	Long-term value: 20 ppm A3, IBE

### 1333-86-4 carbon black

PEL (USA)	Long-term value: 3.5 mg/m <sup>3</sup>
REL (USA)	Long-term value: 3.5* mg/m <sup>3</sup> *0.1 in presence of PAHs; See Pocket Guide Apps.A+C
TLV (USA)	Long-term value: 3* mg/m <sup>3</sup> *inhalable fraction
EL (Canada)	Long-term value: 3 mg/m <sup>3</sup> IARC 2B
EV (Canada)	Long-term value: 3.5 mg/m <sup>3</sup>
LMPE (Mexico)	Long-term value: 3* mg/m <sup>3</sup> A3, *fracción inhalable

### 7782-42-5 graphite

PEL (USA)	Long-term value: 15 mppcf* mg/m <sup>3</sup> *impinger samples counted by light field techn.
REL (USA)	Long-term value: 2.5* mg/m <sup>3</sup> *respirable dust
TLV (USA)	Long-term value: 2* mg/m <sup>3</sup> all forms except graphite fibers; *resp. fraction
EL (Canada)	Long-term value: 2 mg/m <sup>3</sup> respirable
EV (Canada)	Long-term value: 2 mg/m <sup>3</sup> respirable
LMPE (Mexico)	Long-term value: 2* mg/m <sup>3</sup> *fracción respirable

### · Ingredients with biological limit values:

#### 111-76-2 2-butoxyethanol

BEI (USA)	200 mg/g creatinine Medium: urine Time: end of shift Parameter: Butoxyacetic acid with hydrolysis
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### · Exposure controls

#### · Personal protective equipment:

#### · General protective and hygienic measures:

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.  
Do not inhale gases / fumes / aerosols.

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Avoid contact with the eyes and skin.

· **Engineering controls:** Provide adequate ventilation.

· **Breathing equipment:**

Not required under normal conditions of use.

NIOSH or EU approved dust respirator should be used for operations generating dust.

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

· **Protection of hands:**



Protective gloves

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

· **Eye protection:**



Safety glasses

· **Body protection:** Protective work clothing

· **Limitation and supervision of exposure into the environment**

No relevant information available.

## 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **Appearance:**

Form: Liquid

Color: Black

· **Odor:** Pungent

· **Odor threshold:** Not determined.

· **pH-value:** 7.5-9.5

· **Melting point/Melting range:** <0°C (<32 °F)

· **Boiling point/Boiling range:** >100°C (>212 °F)

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

· **Auto-ignition temperature:** Not applicable.

· **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.

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- **Density:**
  - Relative density:** >1
  - Vapor density:** Not determined.
  - Evaporation rate:** Not determined.
- **Solubility in / Miscibility with Water:** Dispersible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity**
  - Dynamic:** 400-200cP
  - Kinematic:** Not determined.
- **VOC content:** 18g/L
- **Other information** No relevant information available.

## 10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** Reacts with strong acids and oxidizing agents.
- **Conditions to avoid** Excessive heat.
- **Incompatible materials**
  - Oxidizers
  - Strong acids
- **Hazardous decomposition products**
  - Carbon monoxide and carbon dioxide
  - Nitrogen oxides

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

### 111-76-2 2-butoxyethanol

Oral	LD50	1480 mg/kg (rat)
Dermal	LD50	1001-2000 mg/kg (rat)
Inhalative	LC50/4h	450 ppm (rat)

### 151-21-3 sodium dodecyl sulphate

Oral	LD50	1288 mg/kg (rat)
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- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.

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- **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):**

1333-86-4 carbon black

2B

· **NTP (National Toxicology Program):**

None of the ingredients are listed.

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

None of the ingredients are listed.

· **Probable route(s) of exposure:**

Eye contact.  
Skin contact.

- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:**  
Contains known or suspect carcinogens when inhaled. Product is in non-inhalable form and is nonclassifiable as a carcinogen.
- **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** No relevant information available.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Additional ecological information**
- **General notes:** Avoid release to the environment.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations. 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.

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

### 14 Transport information

- |  |                 |
|--|-----------------|
| <b>UN-Number</b>   |                 |
| · DOT, ADR, IMDG, IATA   | Not regulated.  |
| <b>UN proper shipping name</b>   |                 |
| · DOT, ADR, IMDG, IATA   | Not regulated.  |
| <b>Transport hazard class(es)</b>  |                 |
| · DOT, ADR, IMDG, IATA   |                 |
| · Class  | Not regulated.  |
| <b>Packing group</b>   |                 |
| · DOT, ADR, IMDG, IATA   | Not regulated.  |
| <b>Environmental hazards</b>   |                 |
| · Marine pollutant:  | No              |
| <b>Special precautions for user</b>  | Not applicable. |
| <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |

### 15 Regulatory information

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

· **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):**

111-76-2 | 2-butoxyethanol

· **TSCA (Toxic Substances Control Act)**

All ingredients are listed.

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**

Reference to carbon black is based on unbound respirable particles and is not generally applicable to product as supplied.

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1333-86-4	carbon black
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**· Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

**· Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

**· Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

**· Carcinogenic categories**

**· EPA (Environmental Protection Agency):**

111-76-2	2-butoxyethanol	NL
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**· IARC (International Agency for Research on Cancer):**

Reference to chemical component(s) listed below are based on unbound respirable particles and are not generally applicable to product as supplied.

1333-86-4	carbon black	2B
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**· NIOSH-Ca (National Institute for Occupational Safety and Health):**

1333-86-4	carbon black
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**· Canadian Domestic Substances List (DSL):**

All ingredients are listed.

## 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.

**· Date of preparation / last revision** October 27, 2017 / -

**· 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

PBT: Persistent, Bio-accumulable, Toxique

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety & Health Administration

Flam. Liq. 4: Flammable liquids – Category 4

Acute Tox. 4: Acute toxicity – Category 4

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

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

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

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

**· Sources**

Website, European Chemicals Agency ([echa.europa.eu](http://echa.europa.eu))

Website, US EPA Substance Registry Services ([ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do](http://ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do))

Website, Chemical Abstracts Registry, American Chemical Society ([www.cas.org](http://www.cas.org))

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

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

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: [www.chemtelinc.com](http://www.chemtelinc.com)