

<a href="#">Carbon Graphite Ink</a>	<a href="#">Pricing &gt;</a>
<a href="#">Carbon Graphite Rotatable Sputtering Targets</a>	<a href="#">Pricing &gt;</a>
<a href="#">Carbon Graphite Sputtering Targets</a>	<a href="#">Pricing &gt;</a>
<a href="#">Carbon Nanochips</a>	<a href="#">Pricing &gt;</a>
<a href="#">Carbon Nanofibers</a>	<a href="#">Pricing &gt;</a>
<a href="#">Graphite Crucibles</a>	<a href="#">Pricing &gt;</a>
<a href="#">Graphite Felt</a>	<a href="#">Pricing &gt;</a>
<a href="#">Graphite Foil</a>	<a href="#">Pricing &gt;</a>
<a href="#">Graphite Nanoparticles / Nanopowder</a>	<a href="#">Pricing &gt;</a>
<a href="#">Graphite Paste</a>	<a href="#">Pricing &gt;</a>
<a href="#">Graphite Plate</a>	<a href="#">Pricing &gt;</a>
<a href="#">Graphite Powder</a>	<a href="#">Pricing &gt;</a>
<a href="#">Graphite Rod</a>	<a href="#">Pricing &gt;</a>
<a href="#">Graphite Shavings</a>	<a href="#">Pricing &gt;</a>
<a href="#">Graphite, Micronized</a>	<a href="#">Pricing &gt;</a>
<a href="#">Graphite, Natural Amorphous</a>	<a href="#">Pricing &gt;</a>
<a href="#">Graphite, Natural Flake</a>	<a href="#">Pricing &gt;</a>
<a href="#">Graphite, Spherical</a>	<a href="#">Pricing &gt;</a>
<a href="#">Mesocarbon Microbeads</a>	<a href="#">Pricing &gt;</a>
<a href="#">Nickel Coated Graphite</a>	<a href="#">Pricing &gt;</a>
<a href="#">Pyrolytic Graphite</a>	<a href="#">Pricing &gt;</a>
<a href="#">Pyrolytic Graphite Sputtering Target</a>	<a href="#">Pricing &gt;</a>

<b>Linear Formula</b>	C
<b>Pubchem CID</b>	5462310
<b>MDL Number</b>	MFCD00144065
<b>EC No.</b>	231-955-3
<b>IUPAC Name</b>	carbon
<b>Beilstein/Reaxys No.</b>	N/A
<b>SMILES</b>	[C]
<b>Inchi Identifier</b>	InChI=1S/C

<b>Inchl Key</b>	OKTJSMMVPCPJKN-UHFFFAOYSA-N
<b>Signal Word</b>	N/A
<b>Hazard Statements</b>	N/A
<b>Hazard Codes</b>	N/A
<b>Risk Codes</b>	N/A
<b>Safety Statements</b>	N/A
<b>Transport Information</b>	N/A

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## SAFETY DATA SHEET

Date Accessed: 12/05/2021

Date Revised: 05/15/2015

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### SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American Elements product codes for CAS #7782-42-5

**Relevant identified uses of the substance:**  
Scientific research and development

Supplier details:  
American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351

Emergency telephone number:  
Domestic, North America +1 800-424-9300  
International +1 703-527-3887

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### SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture  
Not a hazardous substance or mixture.  
GHS Label elements, including precautionary statements  
Not a hazardous substance or mixture.  
Hazards not otherwise classified (HNOC) or not covered by GHS - none

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### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Formula: C  
Molecular weight: 12.01 g/mol  
CAS-No.: 7782-42-5  
EC-No.: 231-955-3

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## **SECTION 4. FIRST AID MEASURES**

Description of first aid measures

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

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## **SECTION 5. FIREFIGHTING MEASURES**

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Carbon oxides

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing Vapors, mist or gas.

For personal protection see section 8.

Environmental precautions

Do not let product enter drains.  
Methods and materials for containment and cleaning up  
Sweep up and shovel. Keep in suitable, closed containers for disposal.  
Reference to other sections  
For disposal see section 13.

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## **SECTION 7. HANDLING AND STORAGE**

Precautions for safe handling  
Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed.  
For precautions see section 2.2.  
Conditions for safe storage, including any incompatibilities  
Keep container tightly closed in a dry and well-ventilated place.  
Specific end use(s)  
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Exposure controls  
Appropriate engineering controls  
General industrial hygiene practice.  
Personal protective equipment  
Eye/face protection  
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).  
Skin protection  
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.  
Body Protection  
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

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## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties

Appearance

Form: Powder or solid in various forms

Colour: Black/ Dark grey

Odor

odourless

Odor Threshold

No data available

pH

No data available

Melting point/freezing point

Melting point/range: 3,652 -3,697 °C (6,606 -6,687 °F)-lit.

Initial boiling point and boiling range

No data available

Flash point

No data available

Evaporation rate

No data available

Flammability (solid, gas)

No data available

Upper/lower flammability or explosive limits

No data available

Vapor pressure

No data available

Vapor density

No data available

Relative density

No data available

Water solubility

slightly soluble

Partition coefficient: n-octanol/water

No data available

Auto-ignition

temperature

No data available

Decomposition temperature

No data available

Viscosity

No data available

Explosive properties  
No data available  
Oxidizing properties  
No data available  
Other safety information  
No data available

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## **SECTION 10. STABILITY AND REACTIVITY**

Reactivity  
No data available  
Chemical stability  
Stable under recommended storage conditions.  
Possibility of hazardous reactions  
No data available  
Conditions to avoid  
No data available  
Incompatible materials  
Strong oxidizing agents  
Hazardous decomposition products  
Other decomposition products - No data available  
In the event of fire: see section 5

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects  
Acute toxicity  
LD50 Oral - Rat - female - > 2,000 mg/kg  
(OECD Test Guideline 423)  
LC50 Inhalation - Rat - male and female - 4 h - 2,000 mg/m<sup>3</sup>  
(OECD Test Guideline 403)  
Dermal:  
No data available  
No data available  
Skin corrosion/irritation  
Skin - Rabbit  
Result: No skin irritation  
(OECD Test Guideline 404)  
Serious eye damage/eye irritation  
Eyes - Rabbit  
Result: No eye irritation  
(OECD Test Guideline 405)  
Respiratory or skin sensitisation  
- Mouse  
Did not cause sensitisation on laboratory animals.  
(OECD Test Guideline 429)  
Germ cell mutagenicity  
in vitro assay  
S. typhimurium

Result: negative

Carcinogenicity

IARC:

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP:

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

Repeated dose toxicity - Rat - male - Feed - No observed adverse effect level - 813 mg/kg

RTECS: MD9659600

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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## SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish

semi - static test LC50 - Danio rerio (zebra fish) - > 100 mg/l - 96 h

(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h

(OECD Test Guideline 202)

Toxicity to algae

static test EC50 - Pseudokirchneriella subcapitata - > 100 mg/l - 72 h

(OECD Test Guideline 201) Persistence and degradability

No data available

Bioaccumulative potential  
No data available  
Mobility in soil  
No data available  
Results of PBT and vPvB assessment  
PBT/vPvB assessment not available as chemical  
safety assessment not required/not conducted  
Other adverse effects  
No data available

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### **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste treatment methods  
Product  
Offer surplus and non-recyclable solutions to a  
licensed disposal company.  
Contaminated packaging  
Dispose of as unused product.

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### **SECTION 14. EXPOSURE CONTROLS/PERSONAL PROTECTION**

DOT (US)  
Not dangerous goods  
IMDG  
Not dangerous goods  
IATA  
Not dangerous goods

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### **SECTION 15. REGULATORY INFORMATION**

SARA 302 Components  
No chemicals in this material are subject to the  
reporting requirements of SARA Title III, Section 302.  
SARA 313 Components  
This material does not contain any chemical  
components with known CAS numbers that exceed  
the threshold (De Minimis) reporting levels  
established by SARA Title III, Section 313.  
SARA 311/312 Hazards  
No SARA Hazards  
Massachusetts/Pennsylvania/New Jersey Right To  
Know Components  
Graphite  
CAS-No.: 7782-42-5  
Revision Date: 1989-08-11  
California Prop. 65 Components  
This product does not contain any chemicals known to



State of California to cause cancer, birth defects, or any other reproductive harm.

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## **16. OTHER INFORMATION**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2016 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.

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