



Synthetic Graphite

According to 29 CFR 1910.1200

SDS Number: 200

Revision Date 09/16/2020

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1 IDENTIFICATION

Product identifier used on the label

Name of substance Synthetic Graphite
 CAS Number 7782-42-5
 Synonyms Graphite

Recommended use of the chemical and restrictions on use

Intended uses High Temperature Applications, Friction Reduction, Lubrications, Coatings, and Conductive Additive.

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Manufacturer Graphite Sales, Inc.
 220 Township Road #791
 Nova, Ohio 44859

Contact Graphite Sales, Inc.
Phone 419-652-3388
Fax 419-652-3985
Website www.graphitesales.com
Emergency Telephone 419-652-3388 (United States)

2 HAZARD(S) IDENTIFICATION

Classification of the substance or mixture

This product is hazardous according to OSHA HazCom Standard, 29 CFR 1910.1200.

NFPA: Health = 1, Fire = 1, Reactivity = 0

HMIS III: H1/F1/PH0

NFPA		
FIRE HAZARD		
H E A L T H		R E A C T I V I T Y
SPECIFIC HAZARD		

HMIS III	
HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	
E Safety Glasses, Gloves, Dust Respirator	

PERSONAL PROTECTION INDEX	
A	G
B	H
C	I
D	J
E	K
F	X Consult your supervisor or S.G.P. for "SPECIAL" handling directions
A Safety Glasses	n Spill Kit
O Face Shield & Eye Protection	p Gloves
q Boots	r Synthetic Apron
t Dust Respirator	s Full Suit
u Vapor Respirator	z Airline Hood or Hood
w Dust & Vapor Respirator	Y Full Face Respirator
z Airline Hood or Hood	ADDITIONAL INFORMATION



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GHS Classification

Physical Hazards	Not classified.
Health Hazards	Not classified.
Environmental hazards	Not classified.
OSHA defined hazards	Combustible Dust.

Label Elements

Labelling in accordance with Regulation of OSHA 29 CFR 1910.1200.

Pictogram: No pictogram.

Signal word: Warning.

Hazard statement: May form combustible dust concentrations in air.

Precautionary statement: Not applicable.

Hazard(s) not otherwise classified (HNOC)

None Known.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

No	Chemical name	CAS number	%
1.	Synthetic Graphite	7782-42-5	100

4 FIRST-AID MEASURES

Description of first aid measures

Inhalation	Blow nose to remove substance from nasal passages. Give oxygen or artificial respiration if needed. If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.
Ingestion	Generally, this product does not irritate through ingestion. Rinse mouth with water. Give 3-4 glasses of water or milk to dilute stomach contents. Do NOT induce vomiting. If vomiting occurs, give more water or milk. Never give anything by mouth to an unconscious person. If symptoms develop and/or persist, obtain medical attention.
Skin contact	Generally, this product does not irritate the skin except through mechanical abrasion. As a precaution, take off contaminated clothing and shoes immediately. Promptly flush skin with water for at least 15 minutes to ensure all chemical is removed. If reddening develops and/or persists, obtain medical attention.
Eye contact	Do NOT rub eyes. Flush with large amounts of water for at least 15 minutes, lifting upper and lower lids occasionally. Remove contact lenses if present and easy to do so. If eye irritations persists, obtain medical attention.

Most important symptoms/effects, both acute and delayed

The most important known symptoms and effects are described in the labeling (see Section 2) and/or Section 11.

Indication of immediate medical attention and special treatment needed

No data available.



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FIRE-FIGHTING MEASURES

Flammability	Combustible at high temperatures when finely dispersed in air.
Flash Point	No data available.
Burning Rate:	No data available.
Autoignition Temp	300 °C (572 °F) (air method)
LEL	Not determined.
UEL	Not determined.
Extinguishing media	Water Spray, Carbon Dioxide, Alcohol-Resistant Foam
Specific hazards arising from the chemical.	Carbon Oxides
Special protective equipment and precautions for fire-fighters	Firefighters should wear full-face, positive-pressure respirators.
Further Information	If incinerated, may release toxic fumes. Use water spray to cool unopened containers. Do NOT use high volume water jet to extinguish fire, as the force of the water jet may cause burning powder to spread (burning powder will float). Product has a combustible dust hazard. Take care to avoid creation of dusts while extinguishing fires. See Section 7 for more information on safe handling. See Section 8 for more information on personal protection equipment. See Section 13 for disposal information.

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ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Use personal protective equipment, including dust respirator. Avoid dust formation. Avoid breathing dust. Keep from contacting skin or eyes. Ensure adequate ventilation. Evacuate personnel to safe areas.
Environmental precautions	Prevent further release (leakage/spillage) if safe to do so. Do not allow product to enter drains. Do not allow to drain to environment. Spill and release of this material to navigable water in sufficient amounts that cause sludge or emission under the water must be reported immediately to the National Response Center (800-424-8802), as required by U.S. Federal Law. Contact the Coast Guard and appropriate state and local regulatory agencies. Failure to report these spills may result in substantial civil and criminal penalties.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up, shovel or collect spillage with an electrically protected vacuum cleaner equipped with HEPA (high efficiency particulate air) filtration, if possible. If necessary, light water spray will reduce dust for dry sweeping. Place contaminated material into suitable, closed containers for disposal. Dispose of contaminated material according to Section 13. After spillage has been collected, area may be flushed with water or wet-brushed. Ensure adequate ventilation.
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.



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7 HANDLING AND STORAGE

Precautions for safe handling

Wear protective clothing. Avoid breathing dusts. Avoid formation of dusts. Avoid contact with eyes, skin, or clothing. Keep containers closed when not in use. Do not expose containers to open flame, excessive heat, or direct sunlight. Do not puncture or drop containers. Handle with care and avoid spillage on the floor. Keep material out of reach of children. Keep material away from incompatible materials. Wash thoroughly after handling. Ensure adequate ventilation. Synthetic Graphite is a good conductor of electricity. Use caution when handling in areas where contact with electrical circuitry is possible.

Conditions for safe storage, including any incompatibilities.

Keep container tightly closed. Store in a dry place. Store away from strong acids, strong oxidizing agents, chlorinated paraffins, lead oxide, manganese oxide, iron oxide, liquid oxygen, oils, chlorine trifluoride, liquid potassium, liquid rubidium, liquid cesium, potassium peroxide, fluorine, and moisture. If Synthetic Graphite contacts liquid potassium, liquid rubidium or liquid cesium at 300 °C (572 °F), intercalation compounds may be formed. These compounds may explode on contact with water or ignite in air.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

None of the ingredients in this product is listed.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Synthetic Graphite (CAS# 7782-42-5)	PEL-TWA	15 mg/m ³ (Total dust) 5 mg/m ³ (Respirable fraction)

US. OSHA Table Z-2 (29 CFR 1910.1000)

None of the ingredients in this product is listed.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value
Synthetic Graphite (CAS# 7782-42-5)	PEL-TWA	15 mppcf*

*mppcf = million particles per cubic foot

US. ACGIH Threshold Limit Values

Components	Type	Value
Synthetic Graphite (CAS# 7782-42-5)	TLV-TWA	2 mg/m ³ (all forms except fibers)



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US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Synthetic Graphite (CAS#7782-42-5)	REL-TWA	2.5 mg/m ³ (resp)

Engineering Measures

All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94). Use local exhaust at filling zones and where leakage and dust formation is probable. Use mechanical (general) ventilation for storage areas. Use appropriate ventilation as required to keep Exposure Limits in Air below TLV & PEL limits.

Eye/face protection

When using material use safety glasses, gloves and dust respirator according to HMIS PP, E. All safety equipment should be tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin Protection

Handle with gloves made from PVC, butyl-rubber, neoprene, nitrile or fluorinated rubber. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact. Dispose of contaminated gloves according to applicable laws and laboratory practices.

Body Protection

Not required. Type of protective equipment should be selected based on concentration amount and conditions of use of this material.

Respiratory Equipment

Use of a dust respirator is highly recommended when using material in poorly ventilated spaces or in a manner that generates dust. For limited exposure to airborne dust use a dust mask of N95 rating or higher. For prolonged exposure, at a minimum use an air-purifying respirator with high efficiency particulate air (HEPA) filter. Full-face dust respirator may be required as backup to engineering controls when proper engineering controls are not in place to keep TLV and PEL limits below defined thresholds.

Hand Protection

No information available.

Control of environmental exposure

Prevent leakage or spillage if safe to do so. Do not let material enter drains.

Other Protection

Hygiene Measures

No information available.

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PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Gray to black solid (powder).

Physical State

Solid.

Color

Gray to black.

Odor

Odorless.

Odor threshold

Not determined.

pH

@ 100%: Not available.

Melting point/freezing point

3652 - 3697 °C (6606 - 6687 °F)

Initial boiling point and boiling range (°C)

Not available.

Flash Point (Octanol)

Not available.

Evaporation rate (butyl acetate=1)

(nBuAc = 1): Not available

Flammability (solid, gas)

Combustible.



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Upper/lower flammability or explosive limits	Not available.
Vapor pressure (mm Hg @ 25 °C)	Not determined
Vapor density (air = 1)	Not determined
Relative density	Not available.
Solubility(ies)	Insoluble.
Partition coefficient: n-octanol/water	Not determined.
Auto-ignition temperature	300 °C (572 °F) (air method)
Decomposition temperature	Not determined.
Viscosity	Not determined.
Other information	
Spec Grav./Density	2.190 - 2.260 g/cm ³
Particle Size	Not determined.
Sat. Vap. Conc	Not determined.
Molecular weight	12.01 g/mol
Molecular Formula	C
Softening Point	Not determined.
Percent Volatile	Not available.
Heat Value	Not determined.
VOC	Not available.
Bulk Density	Not determined.
UFL/LFL	Not determined.

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STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical Stability	Product is stable under normal conditions.
Possibility of hazardous reactions	No information available.
Conditions To Avoid	Incompatibilities, flames, ignition sources, moisture, and accumulation of dust.
Incompatible materials	Strong acids, strong oxidizing agents, chlorinated paraffins, lead oxide, manganese oxide, iron oxide, liquid oxygen, oils, chlorine trifluoride, liquid potassium, liquid rubidium, liquid cesium, potassium peroxide, fluorine, and moisture. If Synthetic Graphite contacts liquid potassium, liquid rubidium or liquid cesium at 300 °C (572 °F), intercalation compounds may be forms. These compounds may explode on contact with water or ignite in air.
Hazardous decomposition Products	Carbon Oxides.
Hazardous Polymerization	Will not occur.

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TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	No information available.
Ingestion	No information available.
Skin contact	Mechanical abrasion may cause skin irritation.



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Eye contact

Mechanical abrasion causes eye irritation.

Acute toxicity

Component	Test	Species	Test Results
Synthetic Graphite (CAS# 7782-42-5)	Oral (LD ₅₀)	Rat	> 2,000 mg/kg
	Inhalation (LC ₅₀)	Rat	2,000 mg/m ³ (4 h)

Skin corrosion/irritation

No information available.

Serious eye damage/eye irritation

No information available.

Respiratory or skin sensitization

Respiratory sensitization

No information available.

Skin sensitization

No information available.

Germ cell mutagenicity

No information available.

Carcinogenicity

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

Reproductive toxicity

No information available.

Specific target organ toxicity - single exposure

No information available.

Specific target organ toxicity - repeated exposure

No information available.

Aspiration hazard

No information available.

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ECOLOGICAL INFORMATION

Ecotoxicity: Not considered hazardous to the environment.

Component	Test	Species	Test Results
Synthetic Graphite (CAS# 7782-42-5)	LC ₅₀	<i>Danio rerio</i>	> 100 mg/l (96 h)
	EC ₅₀	<i>Daphnia magna</i>	> 100 mg/l (48 h)
	EC ₅₀	<i>Pseudokirchneriella subcapitata</i>	> 100 mg/l (72 h)

Persistence and degradability

No data available.

Bioaccumulative potential

No data available on bioaccumulation.

Mobility in soil

Not required/conducted.

Results of PBT and vPvB assessment

Not required/conducted.

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

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DISPOSAL CONSIDERATIONS

Waste Management

Hazardous wastes shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution, release into the environment or damage to people and animals. Contact a licensed professional waste disposal service to dispose of this material.

Disposal Methods

Dispose of as unused product.



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TRANSPORT INFORMATION

	DOT	IMDG	IATA
UN number	Not Regulated.	Not Regulated.	Not Regulated.
UN proper shipping name	Not applicable.	Not applicable.	Not applicable
Transport hazard class(es)	Not applicable.	Not applicable.	Not applicable
Packing group	Not applicable.	Not applicable.	Not applicable
Environmental hazards	No	No	No
Transport in Bulk according to Annex II of MARPOL 73/78 and the IBC Code Notes	Not applicable.	Not applicable.	Not applicable.

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REGULATORY INFORMATION

Regulatory Status (US)

US federal regulations

This product is "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None of the ingredient in this product is listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

None of the ingredient in this product is listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

None of the ingredient in this product is listed.

SARA 311/312 Hazardous chemical

Combustible dust.

SARA 313 (TRI reporting)

None of the ingredient in this product is listed.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

None of the ingredient in this product is listed.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

None of the ingredient in this product is listed.

Safe Drinking Water Act (SDWA)

None of the ingredient in this product is listed.



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US State regulations

US. New Jersey Worker and Community Right-to-Know Act

Synthetic Graphite (CAS# 7782-42-5) - Listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Synthetic Graphite (CAS# 7782-42-5) - Listed.

US. California Proposition 65

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

None of the ingredient in this product is listed.

International Inventories

Australia - AICS

All components are listed or exempted.

Canada - DSL/NDSL

All components are listed or exempted.

China - IECSC

All components are listed or exempted.

Europe - EINECS/ELINCS/NLP

All components are listed or exempted.

Japan - ENCS

All components are listed or exempted.

Korea - ECL

All components are listed or exempted.

New Zealand - NZIoC

All components are listed or exempted.

Philippines - PICCS

All components are listed or exempted.

US - TSCA

All components are listed or exempted.

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OTHER INFORMATION

Information Sources

According to 29 CFR 1910.1200

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Abbreviations and acronyms

TSCA

Toxic Substances Control Act

PICCS

Philippine Inventory of Chemicals and Chemical Substances



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NZIoC	New Zealand Inventory of Chemicals
ECL	Existing Chemical List
ENCS	Existing and New Chemical Substances
NLP	No-Longer Polymers
ELINCS	European List of Notified Chemical Substances
EINECS	European INventory of Existing Commercial chemical Substances
IECSC	Inventory of Existing Chemical Substances in China
DSL	Domestic Substance List
NDSL	Non-Domestic Substance List
AICS	Australian Inventory of Chemical Substances
DOT	Department of Transportation
IMDG	International Maritime Dangerous Goods
IATA	International Air Transport Association
PBT	Persistent, Bioaccumulative and Toxic
vPvB	very Persistent and very Bioaccumulative
NFPA	National Fire Protection Association
HMIS	Hazardous Materials Identification System
CAS	Chemical Abstracts Service

Disclaimer

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