

Safety data sheet
COMMISSION REGULATION (EU) No 2015/830 of 1
June 2015 amending Annex II of Regulation (EU) No
453/2010

Printing date 22.05.2019

Revision: 21.05.2019

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **Trade name:** Synthetic Graphite
- **CAS Number:**
7782-42-5
- **EC number:**
231-955-3
- **Registration number:** The product is exported in the form of Graphite electrodes and thus qualifies as article as per REACH. Hence, registration is not required.
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture**
Conductive polymers/friction materials/lubricants
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
HEG Limited
NH- 12
Mandideep (Bhopal)
Madhya Pradesh
India 462046
- **Further information obtainable from:** Company's Telephone No. 91 - 07480 – 233524
- **1.4 Emergency telephone number:**
Emergency telephone number :
Telephone number of EU importer:
Opening hours:
Other comments(e.g. language(s) of the phone service): English

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
The substance is not classified according to the CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: Substance (exported as article)**
- **CAS No. Description**
7782-42-5 Synthetic Graphite
- **Identification number(s)**
- **EC number:** 231-955-3

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Additional information:

Molecular Formula: C
Molecular Weight: 12.011 g/mol
Concentration Range: >98.0 - ≤ 100.0 % (w/w)
Degree of purity – 99.5 % (w/w) Carbon
Sulphur – About 0.06 %

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** Take affected persons out into the fresh air.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:**
Drink plenty of water and provide fresh air. Call for a doctor immediately.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Information for doctor:** Treat symptomatically and supportively.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Foam, carbon dioxide, dry powder, water spray jet.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
The product is stable at temperatures up to 500 degree Celsius.
During combustion, the product will release small amounts of Sulphur dioxide (SO₂).
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Keep away from ignition sources.
- **6.2 Environmental precautions:**
Do not allow material to enter storm or sanitary sewers, groundwater or soil.
- **6.3 Methods and material for containment and cleaning up:** Pick up mechanically.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:**
Normal measures for preventive fire protection.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:**
Store away from incompatibles
- **Further information about storage conditions:** Store in dry conditions.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:**
No further data; see item 7.

· **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

7782-42-5 Graphite

Applicable for dusts

TWA (15 mg/m³ total dust; 5 mg/m³ respirable fraction)TWA 2 mg/m³, respirable fraction

- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:** Not necessary if room is well-ventilated.
- **Protection of hands:**



Protective gloves

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

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

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- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:	Solid
· Form:	Cylindrical rod
· Colour:	Black
· Odour:	Odourless
· Odour threshold:	Not determined.
· pH-value (50 g/l) at 20 °C:	5 - 6 (slurry)
· Change in condition	
· Melting point/Melting range:	> 2500 °C (sublimates at 3750 Deg C)
· Boiling point/Boiling range:	sublimes
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Product is not flammable.
· Ignition temperature:	
· Decomposition temperature:	Not determined.
· Self-igniting:	Not determined.
· Danger of explosion:	Product does not present an explosion hazard.
· Vapour pressure:	Not determined.
· Density at 25 °C:	2.216 g/cm ³
· Relative density at 21.6 °C	2.12
· Solubility in / Miscibility with water:	Insoluble.
· Partition coefficient (n-octanol/water):	Not applicable
· Viscosity:	
· Dynamic:	Not applicable.
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
Stable at ambient temperature and under normal conditions of use.

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- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No known chemical incompatibilities
- **10.5 Incompatible materials:** Avoid contact with strong oxidizing agents.
- **10.6 Hazardous decomposition products:** Carbon oxides

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

Oral	LD50	> 2000 mg/kg body weight (rat(Wistar)female) (OECD Guideline 423)
Inhalative	LC50 (4 hr)	> 2000 mg/m ³ (rat(Wistar)male/female) (OECD guideline 403)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Not an irritant. (OECD Guideline 404 (Acute Dermal Irritation / Corrosion))
- **Serious eye damage/irritation**
Not an irritant. (OECD Guideline 405 (Acute Eye Irritation / Corrosion))
- **Respiratory or skin sensitisation**
No adverse effect observed (not sensitising) according to OECD Guideline 429.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity**
Genotoxicity: negative (OECD Guideline 473 (In Vitro Mammalian Chromosome Aberration Test))
- **Carcinogenicity** No data available
- **Reproductive toxicity** No data available
- **STOT-single exposure** No data available
- **STOT-repeated exposure** No data available
- **Aspiration hazard** No data available

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

EC50 (48 h)	> 100 mg/L (Daphnia magna) (OECD Guideline 202)
LC50 (96 h)	> 100 mg/L (Danio rerio) (OECD Guideline 203)

- **12.2 Persistence and degradability**
The substance is inorganic and therefore biodegradation is not relevant.
- **12.3 Bioaccumulative potential**
A bioaccumulation study is technically not feasible according to REACH Annex XI, point 2. Based on its physicochemical properties it can safely be concluded that graphite is devoid of any bioaccumulation potential.
- **12.4 Mobility in soil**
Transport of graphite in the environment is not expected: The substance is chemically inert, its solubility in different solvent and water is negligible so drop-off and leakage into

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the aquatic compartment is not expected. In addition the vapour pressure is of no relevance for the substance so transport between the compartments are unlikely.

Additional ecological information:

· **General notes:** Generally not hazardous for water

· **12.5 Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation**

Dispose off waste material according to local, state and federal regulations.

· **Uncleaned packaging:**

· **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· **14.1 UN-Number**

· **ADR, ADN, IMDG, IATA** Not applicable

· **14.2 UN proper shipping name**

· **ADR, ADN, IMDG, IATA** Not applicable

· **14.3 Transport hazard class(es)**

· **ADR, ADN, IMDG, IATA**

· **Class** Not applicable

· **14.4 Packing group**

· **ADR, IMDG, IATA** Not applicable

· **14.5 Environmental hazards:** Not applicable.

· **14.6 Special precautions for user** Not applicable.

· **14.7 Transport in bulk according to**

Annex II of Marpol and the IBC Code Not applicable.

· **UN "Model Regulation":**

Not applicable

SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Labelling according to Regulation (EC) No 1272/2008** Void

· **Hazard pictograms** Void

· **Signal word** Void

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- **Hazard statements** Void
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **15.2 Chemical safety assessment:**
A Chemical Safety Assessment has not been carried out.

SECTION 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.

- **Department issuing MSDS:** Product safety department.
- **Contact:** Company's Telephone No. 91 - 07480 - 233524
- **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
- **Sources**
REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
- ECHA Registered dossier
<https://echa.europa.eu/registration-dossier/-/registered-dossier/16080/1>
- *** Data compared to the previous version altered.**
 - Section 1: Identification of the substance/mixture and of the company/undertaking
 - Section 2: Hazard Identification
 - Section 3: Composition/information on ingredients
 - Section 4: First-aid measures.
 - Section 5: Fire-fighting measures
 - Section 6: Accidental Release measures
 - Section 7: Handling and storage.
 - Section 8: Exposure Controls/Personal protection.
 - Section 9: Physical and Chemical properties.
 - Section 10: Stability and Reactivity
 - Section 11: Toxicological Information.
 - Section 12: Ecological Information.
 - Section 13: Disposal consideration
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 - Section 15: Regulatory information
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