

# EC safety data sheet according to Regulation (EG) Nr. 1907/2006 (changed by EU (EU) Nr. 453/2010)

Current version: 1.0  
Issued: 01.01.2024

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## 1. Identification of the substance or mixture and of the company

### 1.1 Product identifier

**Substance name/Trade name:**

Graphite Conductive, Water soluble polycarboxylate, Demineralized water

**Identification numbers:**

EG-No.: 231-955-3, 613-088-00-6  
CAS-No.: 7782-42-5, 2634-33-5  
REACH registration number not yet granted

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

A graphite filled coating that makes surfaces electrically conductive.

**Relevant identified uses of the substance or mixture:**

Electrical and thermal conductive additive  
Friction modifier  
Carbon carrier  
Lubricant  
Pencil  
Refractories

**Uses advised against:** None  
known

### 1.3 Details of the supplier of the safety data sheet

**Producer / Supplier:**

NoelEnergy s.r.l.  
55A, Transilvaniei street,  
Sangeorgiu de Mures city,  
Mures county,  
ROMANIA  
Mobil +40 (0) 774 909173  
office.noelenergy@gmail.com

### 1.4 Emergency telephone number

+40 (0) 774 909173  
Monday to Friday: 9:00 – 17:00 h

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## 2. Hazards identification

### 2.1 Classification of the substance or mixture

This product does not meet the classification and labelling criteria given in the Regulation (EC) No 1272/2008 (CLP). This product does not meet the classification and labelling criteria given in the Dangerous Preparations Directive 67/548/EC (DSD).

### 2.2 Label elements

Not relevant

### 2.3 Other Hazards

Slightly irritating on inhalation, skin and eye contact, can cause allergic. Further hazards unknown.

### Additional hazard notes for human and environment:

#### Possible harmful physico-chemical effect:

Risk of creation of ignitable mixture unlikely for flake graphite but possible in case of dust generation or during handling of fine-grained powder.

#### Possible harmful effect on human and related symptoms:

Possibility of minor irritation phenomena of skin and mucosa, due to mechanical effect.

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## 3. Composition/information on ingredients

### 3.1 Substances

#### Chemical characterization: Substance

Name: Natural Graphite Ink

Chemical characterisation: Graphitic carbon, Water soluble polycarboxylate, Demineralized water

#### Identification numbers:

EG-No.: 231-955-3, 613-088-00-6

CAS-No.: 7782-42-5, 2634-33-5

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### 3.2 Mixtures

Is applicable. The product is a mixture

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## 4. First aid measures

### 4.1 Description of first aid measures

#### **General information:**

In case of persisting symptoms and adverse effects, consult a physician. In case of unconsciousness, handling and transport in recovery position.

#### **After inhalation:**

Remove affected person from the immediate area. Ensure supply of fresh air and respiration.

#### **After skin contact:**

Clean affected skin with plenty of water and soap.

#### **After eye contact:**

Wash the eyes with running water. Consult an ophthalmologist if adverse symptoms persist.

#### **After ingestion:**

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

### 4.2 Most important symptoms and effects, both acute and delayed

Most important symptoms are listed in section 11.

### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

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## 5. Firefighting measures

### 5.1 Extinguishing media

Water spray jet, extinguishing powder, alcohol-resistant foam, sand, carbon dioxide.

### 5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Carbon monoxide (CO); Carbon dioxide (CO<sub>2</sub>).

### 5.3 Advice for firefighters

Use self-contained breathing apparatus if necessary.

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## 5.4 Additional information

No data available

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## 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel:**

Avoid dust formation. Avoid inhalation of vapour and dust. Avoid contact with skin, eyes and clothing. High risk of slipping due to leakage/spillage of product.

**For emergency responders:**

Personal protective equipment (PPE) - see Section 8. In case of emergency, use of personal protective equipment [DIN EN 469, EN 12021].

### 6.2 Environmental precautions

No data available

### 6.3 Methods and material for containment and cleaning up

Sweep up, wash or use a suitable vacuum cleaner.

### 6.4 Reference to other sections

No data available

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## 7. Handling and storage

### 7.1 Precautions for safe handling

Avoid inhalation, contact with eyes, skin and clothing. Avoid prolonged or repeated exposition. Provide good ventilation of working area (local exhaust ventilation, if necessary). If workplace exposure limits are exceeded, respiratory protection approved for the particular job must be worn.

**General protective and hygiene measures:**

In case of spillage generation at workplace, wash with warm water, use local exhaust ventilation. Avoid inhalation, contact of material with eyes, skin and clothing as well as prolonged or repeated exposition.

**Advice on protection against fire and explosion:**

Substance is combustible if is speayed. Fire extinguishing installations are to be hold available. Avoid dust generation. Dust should be aspirated immediately on the spot. Avoid electrostatic charging.

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

**Technical measures and storage conditions**

Keep container tightly closed, protected from light and dry.

Keep in a dry place with good ventilation.

Storage category (TRGS 510): combustible solids

**7.3 Specific end uses**

No data available

**8. Exposure controls/personal protection**

**8.1 Control parameters**

**8.1.1 Occupational exposure limit values**

Substance	EG-No.	CAS-No.	Threshold	Time-weighted average per work shift	Remarks
Graphite	231-955-3	7782-42-5	General dust emission threshold according to TRGS 900	1,25 mg/m <sup>3</sup> A 10 mg/m <sup>3</sup> E	E-Fraction: exceedance factor 2, 15 min, 1x per work shift * A-Fraction: exceedance factor 8, 15 min, 4x per work shift *
1,2-Benzisothiazol-3(2H)-one	613-088-00-6	2634-33-5	Monomer vapors may be evolved when material is heated during processing operations.	1,2-Benzisothiazol-3(2H)-one (2634-33-5): Freshwater: 0.004 mg/l Sea water: 0.0004 mg/l Fresh water sediment: 0.0499 mg/kg Sea water sediment: 0.00499 mg/kg Intermittent release: 0.0011 mg/l Sewage treatment system (STP): 1.03 mg/l Soil: 3.02 mg/kg	1,2-Benzisothiazol-3(2H)-one (2634-33-5): 0.966 mg/kg bw/d (worker, skin contact, long-term exposure systemic effects) 6.81 mg/m <sup>3</sup> (worker, inhalation, long-term exposure - systemic effects) 0.345 mg/kg bw/d (consumer, skin contact, long-term exposure systemic effects) 1.2 mg/m <sup>3</sup> (consumer, inhalation, long-term exposure - systemic effects)

**8.1.2 DNEL- und PNEC- values**

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Not applicable

## 8.2 Exposure controls

### 8.2.1 Technical measures for exposure control

Processing and handling in closed facility, if possible. Ensure good ventilation of workplace. Aspiration of dust right at point of origin.

### 8.2.2 Individual measures for exposure control - Personal protective equipment



#### Respiratory protection:

In case of dust exposure, a respiration protection (respiration filter mask type P1 (EN 143)) must be worn. Use respiratory masks and components tested and approved under government standards such as NIOSH (US) or CEN (EU).



#### Eye / face protection:

In case of dust exposure use safety glasses with integrated side protection shield according to DIN (EN 166). Only use safety glasses or other eye protection equipment tested and approved under government standards such as NIOSH (US) or CEN (EU).



#### Hand protection:

The use of safety gloves complying with directive 89/686/EWG and European Standard EN 374 is advised in the event of frequent skin contact with the product. Recommended safety gloves, e.g., nitrile rubber, 0.11mm thickness, breakthrough time of 480 minutes.

**Body protection:** No additional requirements.

#### Workplace hygiene:

Avoid inhalation of dust.

### 8.2.3 Environmental exposure controls

Do not discharge into the drains/surface waters/groundwater.

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## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

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a) Physical state	solid
b) Appearance/form	flaky to rounded particles
c) Odour	odourless
d) Geruchsschwelle	No data available
e) pH-value	neutral
f) Melting point	Melting range 3652-3697°C (lit.)
g) Boiling point	No data available
h) Flashpoint	No data available
i) Evaporation rate	No data available
j) Flammability	No data available
k) Upper and lower explosion limit	No data available
l) Vapour pressure	No data available
m) Vapour density	No data available
n) Density	2.26 g/cm <sup>3</sup>
o) Water solubility	Slightly soluble
p) Distribution coefficient n-Octanol/Water	No data available
q) Auto-ignition temperature	No data available
r) Decomposition temperature	No data available
s) Viscosity	No data available
t) Explosive properties	Dust ST1
u) Oxidising properties	No data available

## 9.2

### Other information

No further information of security relevant parameters necessary.

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## 10. Stability and reactivity

### 10.1 Reactivity:

No data available

### 10.2 Stability:

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reaction:

No data available

### 10.4 Conditions to be avoided:

Very high temperatures.

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## 10.5 Incompatible materials:

Strong oxidants

## 10.6 Hazardous decomposition products:

Carbon oxides by heating in air/oxygen.

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## 11. Toxicological information

### 11.1 Information on toxicological effects

#### Acute oral toxicity:

LD50 oral - rat - female - > 2.000 mg/kg

Method: OECD 423

LC50 inhalation – rat – male and female – 4h – 2.000 mg/m<sup>3</sup>

#### Skin corrosion/irritation:

Species: rabbit

Result: No irritation

Method: OECD 404

#### Serious eye damage/eye irritation:

Species: rabbit

Result: No irritation

Method: OECD 405

#### Respiratory or skin sensitization:

Species: mouse

Result: non-sensitizing

Method: OECD 429

#### Germ cell mutagenicity:

Test type: bacterial reverse mutation

S. typhimurium

Result: negative

#### Carcinogenicity:

According to U.S. National Institute of Health (NTP): quartz-containing natural graphite could possibly have a carcinogenic effect on human.

#### Reproduction toxicity:

No data available

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## 11.2 Additional information

High dust concentrations of natural graphite can cause respiratory problems in case of prolonged inhalation. Chronic exposition to quartz-containing natural graphite could support the development of silicosis.

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## 12. Ecological Information

### 12.1 Toxicity

#### Toxicity to fish (acute)

LC50: >100 mg/l  
Duration of exposure: 96h  
Species: Danio rerio  
Method: OECD 203

#### Toxicity to fish (chronic)

No data available

#### Toxicity to Daphnia (acute)

EC50: >100 mg/l  
Duration of exposure: 48h  
Species: Daphnia magna  
Method: OECD 202  
Statischer Test EC50 - Daphnia magna (Großer Wasserfloh) - > 100 mg/l – 48 h

#### Toxicity to Daphnia (chronic)

No data available

#### Toxicity to algae (acute)

EC50: >100mg/l  
Duration of exposure: 72h  
Species: Pseudokirchneriella subcapitata  
Method: OECD 201

#### Toxicity to algae (chronic)

No data available

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

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No data available

## 12.5 Results of PBT and vPvB assessment

This product/mixture does not contain components in concentrations of 0.1% or above and classified as PBT or vPvB

## 12.6 Other adverse effects

No data available

## 12.7 Other information:

Natural graphite is a chemically inert material which is not harmful to the environment.

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## 13. Disposal considerations

### 13.1 Water treatment methods

#### Product

Residues have to be disposed of in accordance with the regulations for waste removal and in agreement with a designated disposal company.

#### Packaging

Dispose of as unused product

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## 14. Transport information

The product is not subject to ADR/GGVS/RID/GGVE/ICAO/IATA/IDMG regulations.

### 14.1 UN-Number

ADR/RID: - IMDG: - IATA: -

### 14.2 Regular UN shipping name

ADR/RID/IMDG/IATA: - no dangerous goods

### 14.3 Transport hazard class

ADR/RID/IMDG/IATA: - no dangerous goods

### 14.4 Packaging group

ADR/RID: - IMDG: - IATA: -

### 14.5 Environmental hazards

ADR/RID: - IMDG Marine pollutant: - IATA: -

### 14.6 Special precautions for user

No data available

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code

Not relevant

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## 15. Regulatory information

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

Non-hazardous to water

**15.1.1 Chemical safety assessment according to directive EG 1907/2006 (REACH) A**  
chemical safety assessment (CSA) according to REACH is not yet available for graphite.

**15.1.2 Classification and labelling according to EU directive 67/548/EWG und 1999/45/EG:**  
The substance is not subject to classification.

**15.1.3 Hazard symbols, Hazard- and Precautionary statements**  
Not applicable

**15.1.4 Special labelling of particular preparations / Hazard-determining components of labelling**  
Not applicable

**15.1.5 Approval and/or restrictions on use**  
Not applicable

**15.1.6 Other EU regulations**  
Not applicable

**15.1.7 Other requirements, restrictions and prohibitions**  
Not applicable

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## 16. Other information

### Changes in this version compared to the previous one

Translation and editorial revision

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## Data sources

- Classification and Labelling (C&L)
- ECHA's new chemicals database
- CRC Handbook of Chemistry and Physics
- MSDS of other producers

## Training for employees

No specific training on graphite needed. General training on processing, handling and storage of dusty materials sufficient.

## Further information

### Issuer of safety data sheet and contact:

NoelEnergy s.r.l.  
55A, Transilvaniei street,  
Sangeorgiu de Mures city,  
Mures county,  
ROMANIA

Mobil +40 (0) 774 909173  
office.noelenergy@gmail.com

## Important note

This information is based and compiled on our current state of knowledge and experience. We do not claim the information contained in this safety data sheet to be complete. The reader and user should understand the contained information as a guideline.

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