NORTHERN GRAPHITE CORPORATION

NATURAL GRAPHITE
safety data sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

LDI NATURAL FLAKE GRAPHITE (LDI-NFG) **Issue date: 2022.05.26 | Revision date: 2023.03.26 | Version: 1.0**

Section 1: IDENTIFICATION

1.1: Identification

Product Form: Substance
Trade Name: LDI Natural Flake Graphite

1.2: Recommended Use & Restrictions on Use

Recommended Use:
- Electrical and thermal conductive additive
- Friction modifier
- Carbon carrier
- Lubricant
- Refractories

Restrictions on Use: No information available

1.3: Supplier

Northern Graphite Corporation
585 chemin du Graphite
Lac des Iles, Quebec, Canada J0W 1J0
T +1-819-597-2911
clients@northerngraphite.com

1.4: Emergency Telephone Number

For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC Day or Night
Within USA and Canada:1-800-424-9300
Outside USA and Canada:+1 703-527-3887 (collect calls accepted)

Section 2: HAZARD(S) IDENTIFICATION

2.1: Classification of the Substance or Mixture

GHS US classification: Not classified

2.2: GHS Label elements, including precautionary statements

GHS US Labeling:
Hazard pictograms (GHS US): None
Signal word (GHSUS): None
Hazard statements (GHS US): Not applicable
Precautionary statements (GHS US): No information available.

2.3: Other Hazards that do not result in classification

Dust can form an explosive mixture with air.

2.4: Unknown acute toxicity (GHS US)

No information available.

Section 3: COMPOSITION | INFORMATION ON INGREDIENTS

3.1: Substances

Name: Graphite
Product Identifier: (CAS-No.) 7782-42-5
%: > 93

Full text of hazard classes and H-statements: see section 16

3.2: Mixtures

Not Applicable

Composition: Information on other ingredients

ANALYSIS	PRODUCT				CAS #
Graphite	94%	95%	96%	97%	7782-42-5
SiO2	2.6%	2.2%	1.8%	1.3%	7631-86-9
Al2O3	0.8%	0.6%	0.5%	0.4%	1344-28-1
Fe2O3	1.0%	0.9%	0.6%	0.5%	1309-37-1
MgO	0.5%	0.4%	0.3%	0.2%	1309-48-4
CaO	1.0%	0.8%	0.7%	0.5%	1305-78-8
K2O	0.1%	0.1%	0.1%	0.1%	12136-45-7
Totals	100.0%	100.0%	100.0%	100.0%	

Section 4: FIRST AID MEASURES

4.1: Description of First Aid Measures

First-aid measures general: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor

First-aid measures after skin contact: Wash skin with mild soap and water. If irritation persists, consult a doctor.

First-aid measures after eye contact: Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion: Rinse mouth. Do not induce vomiting. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice.

4.2: Most Important Symptoms & Effects (acute & delayed)

Symptoms/Effects: No information available

4.3: Immediate Medical Attention & Special Treatment, if Necessary

Treat symptomatically

Section 5: FIRE-FIGHTING MEASURES

5.1: Suitable (and Unsuitable) Extinguishing Media

Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media: No information available.

5.2: Specific Hazards Arising from the Chemical

Reactivity in case of fire: No information available.

Hazardous decomposition products in case of fire: Toxic fumes may be released, such as carbon monoxide, carbon dioxide.

5.3: Special Protective Equipment and Precautions for Fire Fighters

Protection during fire fighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1: Personal Precautions, Protective Equipment & Emergency Procedures

General Measures: Evacuate personnel to a safe area. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ensure adequate ventilation, especially in confined areas.

Personal Precautions, Protective Equipment and Emergency Procedures: Use personal protective equipment as required

Section 6: ACCIDENTAL RELEASE MEASURES (continued)

6.1.1: For Non-emergency Personnel

Protective Equipment: Wear recommended personal protective equipment.

Emergency procedures: Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust. Do not eat, drink or smoke during use. Wash thoroughly after handling.

6.1.2: For Emergency Responders

Protective Equipment: Do not attempt to take action without suitable protective equipment.
For further information refer to **Section 8: "Exposure controls/personal protection".**

6.2: Environmental Precautions

General Measures: Avoid release to the environment. Prevent entry to sewers and public waters. Advise local authorities if considered necessary.

6.3: Methods & Material for Containment & Cleaning Up

Methods for Cleaning Up: Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal.

Other information: Dispose of materials or solid residues at an authorized site.

6.4: Reference to Other Sections

For further information refer to section 13.

Section 7: HANDLING & STORAGE

7.1: Precautions for Safe Handling

Precautions for Safe Handling: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take action to prevent static discharges. Use personal protective equipment as required.

Hygiene Measures: Keep away from food, drink and animal feeding stuffs. Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust.

Local and General Ventilation: Ensure adequate ventilation, especially in confined areas.

7.2: Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Keep container tightly closed. Containers which are opened should be properly resealed and kept upright to prevent leakage. Keep only in original container.

Storage temperature: No information available

Material used in packaging/containers: No information available

Incompatible materials: Fluorine, chlorine trifluoride.

Section 8: EXPOSURE CONTROLS | PERSONAL PROTECTION

8.1: Control Parameter

GRAPHITE (7782-42-5)

USA - ACGIH - Occupational Exposure Limits

ACGIH TWA (mg/m³): 2 mg/m³ (all forms except graphite fibers - respirable particulate matter)

USA - OSHA - Occupational Exposure Limits

OSHA PEL (TWA) (mg/m³): 15 mg/m³ (synthetic-total dust) | 5 mg/m³ (synthetic-respirable fraction)

USA - IDLH - Occupational Exposure Limits

US IDLH (mg/m³): 1250 mg/m³

USA - NIOSH - Occupational Exposure Limits

NIOSH REL (TWA) (mg/m³): 2.5 mg/m³ (natural-respirable dust)

8.2: Appropriate Engineering Controls

Appropriate Engineering Controls: Remove all sources of ignition. Ensure good ventilation of the workstation.

Environmental Exposure Controls: Avoid release to the environment.

8.3: Individual Protection Measures | Personal Protective Equipment

Hand Protection: Protective gloves (EN 374) | Appropriate Material: rubber

Eye Protection: Safety glasses with side shields (EN 166)

Skin & Body Protection: Wear suitable protective clothing

Respiratory Protection: In case of insufficient ventilation, wear suitable respiratory equipment. FFP2SL (EN 149)

Section 9: PHYSICAL & CHEMICAL PROPERTIES

9.1: Information on Basic Physical & Chemical Properties

Physical State: Solid

Appearance: Powder

Color: Grey to Black

Odor: Odorless

Odor Threshold: No data available

pH: No data available

Melting Point: Ca. 3500 °C

Freezing Point: No data available

Boiling Point: No data available

Flash Point: No data available

Relative Evaporation Rate (butyl acetate=1): No data available

Flammability (solid, gas): Non flammable

Vapor Pressure: < 0.01 mbar (20 °C)

Relative Vapor Density at 20 °C: No data available

Relative Density: No data available

Specific Gravity / Density: 2.1 - 2.3 g/cm3 (25 °C)

Solubility: **< 0.001 g/L**

Partition Coefficient n-octanol/water (Log Pow): No data available

Auto-ignition Temperature: > 600 °C (dispersed dust cloud) | 365 °C (dispersed dust)

Decomposition Temperature: No data available

Viscosity, Kinematic: No data available

Viscosity, Dynamic: No data available

Explosion Limits: No data available

Explosive Properties: No data available

Oxidizing Properties: No data available

9.2: Other Information

Other Information: No other information available

Section 10: STABILITY & REACTIVITY

10.1: Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2: Chemical Stability

Stable under normal conditions.

Section 10: STABILITY & REACTIVITY (continued)

10.3: Possibility of Hazardous Reactions

No dangerous reactions known under normal conditions of use.

10.4: Conditions to Avoid

None under recommended storage and handling conditions (see section 7)

10.5: Incompatible Materials

Fluorine, chlorine trifluoride

10.6: Hazardous Decomposition Products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11: TOXICOLOGICAL INFORMATION

11.1: Information on Toxicological Effects

Acute toxicity (oral): Not classified
Acute toxicity (dermal): Not classified
Acute toxicity (inhalation): Not classified

GRAPHITE (7782-42-5)

LD50 oral rat: 2000 mg/kg

Skin Corrosion/Irritation: Non-irritant (Rabbit, OECD 404)
Serious Eye Damage/Irritation: Low-irritant (Rabbit, OECD 405)
Respiratory or Skin Sensitization: Not classified
Germ Cell Mutagenicity: Not classified
Carcinogenicity: Not classified
Reproductive Toxicity: Not classified
STOT-single Exposure: Not classified
STOT-repeated Exposure: Not classified
Aspiration Hazard: Not classified
Viscosity, Kinematic: No data available

Section 12: ECOLOGICAL INFORMATION

12.1: Toxicity

Ecology General: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Section 12: ECOLOGICAL INFORMATION (continued)

12.2: Persistence & Degradation

No additional information available

12.3: Bio-accumulative Potential

No additional information available

12.4: Mobility in Soil

No additional information available

12.5: Other Adverse Effects

No additional information available

Section 13: DISPOSAL CONSIDERATIONS

13.1: Disposal Methods

Waste treatment methods: Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging Disposal Recommendations: Dispose of contents/container in accordance with licensed collector's sorting instructions.

Section 14: TRANSPORTATION INFORMATION

Department of Transportation (DOT): In accordance with DOT | Not regulated

Transportation of Dangerous Goods: Not regulated

Transport by Sea: Not regulated

Air Transport: Not regulated

Section 15: REGULATORY INFORMATION

15.1: US Federal Regulations

Graphite (7782-42-5): Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2: International Regulations

CANADA | Graphite (7782-42-5): Listed on the Canadian DSL (Domestic Substances List)

EU REGULATIONS | Graphite (7782-42-5): Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

NATIONAL REGULATIONS | Graphite (7782-42-5): Listed on the
AICS (Australian Inventory of Chemical Substances)
IECSC (Inventory of Existing ChemicalSubstances Produced or Imported in China)
KECL/KECI (Korean Existing Chemicals Inventory)

Section 15: REGULATORY INFORMATION (continued)

15.2: International Regulations (continued)

NATIONAL REGULATIONS | Graphite (7782-42-5): Listed on the
NZIoC (New Zealand Inventory of Chemicals)
PICCS (Philippines Inventory of Chemicals and Chemical Substances)
INSQ (Mexican National Inventory of Chemical Substances)
TCSI (Taiwan Chemical Substance Inventory)

15.3: US State Regulations

No additional information available

Section 16: OTHER INFORMATION

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Revision Date: 06/03/2020

Data Sources: ECHA. Loli.

Training Advice: Normal use of this product shall imply use in accordance with the instructions on the packaging.

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.