



GrapheneTech S.L.
Virgen del Buen Acuerdo Nº41
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www.graphene-tech.net
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Version 1.1
Revision Date: 2017/11/22

Conforms to Regulations: (EC) No. 1907/2006 (REACH) & No. 1272/2008 (CLP)

SAFETY DATA SHEET. Graphene nanoplatelets, powder – GPL

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

1.1 Product identifier:

Product Name	Graphene nanoplatelets, powder – GPL
Product Code	G-10004
Trademark	GrapheneTech
Reach No.	02-2120048403-64-0000
CAS No.	7782-42-5
EC No.	231-955-3

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

Identified use(s)	Laboratory chemicals, Manufacture of substances
Uses advised against	None

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier	GrapheneTech, S.L. C / Virgen del Buen Acuerdo N-41 E-50014, ZARAGOZA
Telephone	+34 976 248 137
Fax	+34 976 506 938
E-mail	info@graphene-tech.net

1.4 Emergency telephone number

Emergency Phone No.	+34 704 100 087
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SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture

The substance is classified and labeled according to the Globally Harmonized System (GHS). Regulation (EC) No 1272/2008).

2.2 Label elements

GHS Pictogram



Signal Word

Warning

Hazard Class

Skin irritation, Category 2.

Eye Irritation, Category 2.

STOT* after single exposure, Category 2

STOT* after repeated exposure, Category 2.

Hazard Statements

H315: Causes skin irritation.

H319: Causes eye irritation.

H371: STOT* after single exposure

H373: STOT* after repeated exposure.

Precautionary statements

P260: Do not breathe dust/fume/gas/mist/vapours/spray.

P270: Do not eat, drink or smoke when using this product.

P280: Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...

P314: Get medical advice/attention if you feel unwell.

P302+P352: IF ON SKIN: Wash with plenty water.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: get medical advice/attention.

P501: Dispose of contents/container to Local Government requirements



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2.3 Other hazards

This substance contains no components considered to be either persistent, bioaccumulative and Toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/Information on ingredients

3.1 Substances

Synonyms	Multilayer Graphene / Graphene powder / GNP powder
CAS No.	1034343-98-0
Wt. %	>97%

No components need to be disclosed according to the applicable regulations.

SECTION 4: First aid measures

4.1 Description of first aid measure

Eye Contact	Rinse opened eyes for several minutes under running water. If symptoms persist, consult a physician.
Skin Contact	Remove contaminated clothing and wash skin with soap and water and rinse thoroughly.
Inhalation	Remove from exposure. Keep warm and rest and get medical attention.
Ingestion consult	Wash out mouth with water. Do not induce vomiting. If are symptoms a doctor.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available about symptoms and effects, both acute and delayed.

If not sure about any symptoms contact a doctor or emergency service (show the label or SDS when possible).



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SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media Water spray, alcohol resistant foam, dry chemicals or CO₂.

Unsuitable extinguishing media Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Carbon monoxide (CO) can be released in case of fire.

5.3 Advice for fire-fighters

If necessary, wear self-contained breathing apparatus for firefighting because combustion may produce hazardous fumes.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use proper personal protective equipment. Avoid accumulations or concentrations of dust. Avoid breathing vapors and dust. Ensure adequate ventilation. Eliminate all sources of ignition.

6.2 Environmental precautions

Prevent material entering drains and watercourses.

6.3 Methods and materials for containment and cleaning-up.

Clean and remove excess product without generating dust. Wipe residues on surfaces with a suitable detergent / floor detergent and rinse and dry thoroughly. This precaution will avoid a slip hazard. Store in suitable, closed containers for disposal.

6.4 Reference to other sections

See Section 7 for safe handling information.

See section 8 for protective equipment.

See Section 13 for disposal information.



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SECTION 7: Handling and storage

7.1 Precautions for sale handling

Avoid dust formation. Provide adequate ventilation in places where dust is formed. Keep container tightly closed when not in use.

General hygiene advice at work: Do not eat, drink or smoke while handling this material. Wash hands after handling this product.

7.2 Conditions for safe storage, including any incompatibilities

Keep in the original container in a cool, dry place, away from sources of ignition or heat. Store in a tightly closed container. Good ventilation is required in the workplace.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/Personal protection

8.1 Control parameters

It is recommended that exposure levels be kept as low as possible, following good industrial hygiene practices, in order to minimize any potential lung effects. Exposure to skin should also be minimized Components with occupational exposure limits.

8.2 Exposure controls

Appropriate engineering controls Use appropriate ventilation or a suitable gas extractor hood to maintain exposure below the recommended exposure limits. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and after working day.

Personal protective equipment

Eyes/face protection Wear safety glasses with side shields or goggles.
Standard EN 166. Wear eye protection equipment tested and approved in EN 166 (EU) or NIOSH (United States of America)

Skin protection (Hand protection/Other) Wear plastic or rubber gloves.
The selected protective gloves must comply with the Directive 89/686 / EEC and the standard EN 374 derived therefrom.

Respiratory protection For unusual exposures, use respirator particles type P1 (EU EN 14387). For a higher level of protection, use a respirator with high efficiency filters type ABEK (EU EN 14387).



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Other protection

Wear appropriate protective clothing according to their characteristics, the concentration and amount of hazards substances, and the specific workplace.
General hygiene measures for the handling of chemicals are applicable. Wash hand before breaks and after work.

Environmental Do not allow to enter drains, sewers or watercourses.

Exposure

Controls

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance – Powder

Colour – Black

Odour – Odourless

pH – Not available

Melting Point / Freezing Point – Not available

Evaporation Rate – Not available

Decomposition temperature – 690°C

Flammability – Not available

Partition coefficient – Not available

Solubility – Negligible

Viscosity – Not available

Flammability limit % (Upper) – Not available

Flammability limit % (Lower) – Not available

Relative Density – Not available

Boiling Point / Boiling range – Not available

Flash point – Not available

Explosive properties – Not available

Partition coefficient – Not available

Vapour pressure – Not available

Vapour density – Not available

Auto ignition temperature – Not available

Oxidising properties – Not available

9.2 Other information

No dangerous reaction known under conditions of normal use.

SECTION 10: Stability and reactivity

10.1 Reactivity

Oxidising agents.

10.2 Chemical stability

Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.



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10.4 Conditions to avoid

Incompatible materials, dust generation. Avoid heat, sparks, flames and other sources of ignition.

10.5 Incompatible materials

Strong oxidizing substances.

10.6 Hazardous decomposition products

Carbon monoxide (CO) and carbon dioxide (CO₂).

SECTION 11: Toxicological information

11.1 Information on toxicological effects

This product contains engineered nanoparticles which have structural features with at least one dimension of 100 nanometers or less.

<i>Acute toxicity</i>	Under evaluation (**)
<i>Skin corrosion/irritation</i>	Under evaluation (**).
<i>Serious eye damage/irritation</i>	Under evaluation (**).
<i>Respiratory or skin sensitization</i>	Under evaluation (**)
<i>Germ cell mutagenicity</i>	No data available.
<i>Carcinogenicity</i>	No component of this product that present levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by the IARC.
<i>Reproductive toxicity</i>	No data available.
<i>STOT – single exposure</i>	No data available.
<i>STOT – repeated exposure</i>	No data available.
<i>Aspiration Hazard</i>	No data available

11.2 Other information

Not available.



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SECTION 12: Ecological information

12.1 Toxicity

Under evaluation (**).

12.2 Persistence and degradability

Under evaluation (**).

12.3 Bioaccumulative potential

Under evaluation (**).

12.4 Mobility in soil

Not available.

12.5 Results of PBT and vPvB assessment

A PBT/vPvB assessment has not yet been carried out under REACH for the constituents. However, there are no indications that this product contains substances likely to be classified as PBT/vPvB.

12.6 Other adverse effects

Not available.

SECTCION 13: Disposal Considerations

13.1 Waste management methods

Manage the elimination of excess products and non recyclable solutions to a company accredited as waste manager. Follow Local Government requirements.
Do not dispose of with household waste. Do not allow product to reach sewer system.

13.2 Additional information

Not available.



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SECTION 14: Transport information

14.1 UN number

Not classified.

14.2 UN proper shipping name

Land transport (ADR/RID) Not dangerous goods.

Sea transport (IMDG) Not dangerous goods.

Air transport (ICAO/IATA) Not dangerous goods.

14.3 Transport hazard class (es)

Not classified.

14.4 Packing group

Not classified.

14.5 Environmental hazards

Not classified.

14.6 Special precautions for user.

No data available.

SECTION 15: Regulatory information

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

No data available.

15.2 Chemical Safety Assessment


No data available.

SECTION 16: Other information

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Prepared by: GrapheneTech S.L.

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Additional Information

Disclaimer: 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 contained herein is based on the present state of our knowledge and is applicable to safety precautions appropriate for the product. It does not represent any guarantee of the properties of the product. GrapheneTech S.L. shall not be held liable for any damage resulting from handling or from contact with the product. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or any process. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use. GrapheneTech S.L. is not liable for any damage resulting from handling or from contact with the above product.