

Section 1.- Identification of the substance/mixture and of the company

- **Identification of the product:** Graphene oxide solution
- **Chemical family:** Graphite
- **Product name:** DRP-GPHOXSOL-AQU
- **Use of the substance/preparation:** Research use only
- **Manufacturer/supplier identification:** Metrohm DropSens, S.L. Vivero de Ciencias de la Salud, Calle Colegio Santo Domingo de Guzmán, s/n, 33010 Oviedo, Asturias, Spain
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Section 2.- Hazards identification

Caution! To the best of our knowledge the toxicological properties of this material has not been thoroughly investigated. The present substance has been classified according to hazards identification of its components.

If dries, may cause eye, skin and respiratory tract irritation.

Classification of the mixture:

According to Regulation CLP (EC) No1272/2008

- Eye irritation (Category 2)

Label elements:Hazard statements

H319 – Causes serious eye irritation.

H335 – May cause respiratory irritation

Precautionary statements

P280 – Wear eye protection/ face protection.

P305 + P338 + P351– 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.

P261 – Avoid breathing dust/fume/gas/mist/vapours/spray

Supplemental Hazard Statements

None

Section 3.- Composition/Information on ingredients

- **Graphene oxide** **Synonyms:** Oxidic graphene, graphite oxide, oxidized graphite
CAS: Graphite 7782-42-5
Concentration: 4 mg/mL

Section 4.- First aid measures

- **General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.
- **After skin contact:** Wash skin with soap and copious amounts of water.
- **After ingestion:** Make victim drink plenty of water. Never give anything by mouth to an unconscious person, rinse mouth with water.
- **After eye contact:** Rinse out with plenty of water with the eyelid held wide open for at least 15 minutes.
- **After inhalation:** Move the person into fresh air. If it is necessary, give artificial respiration with oxygen.

Section 5.- Fire-fighting measures

- **Suitable extinguishing media:** dry power or dry sand.
- **Special hazards arising from the substance:** Metal oxides, carbon dioxide and carbon monoxide. May form toxic fumes.
- **Special protective equipment for fire fighting:** Wear self contained breathing apparatus for fire fighting if necessary.
- **Further information:** Use water spray to cool unopened containers.

Section 6.- Accidental release measures

- **Person-related precautionary measures:** Use personal protective equipment. Avoid breathing vapours. Ensure adequate ventilation.
- **Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
- **Methods and materials for containment and cleaning up:** Contain spillage and then with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.
- **Procedures for cleaning/absorption:** Keep in suitable, closed containers for disposal.

Section 7.- Handling and storage

- **Handling:** Avoid eye and skin contact. Avoid inhalation of vapour or mist. Keep away from sources of ignition – No smoking. Take measures to prevent the build-up of electrostatic charge.
- **Storage:** Store in cool place. Keep container tightly closed in a dry and well-ventilated place protected from direct sunlight.

Section 8.- Exposure controls/personal protection

Exposure controls

General industrial hygiene practice

- Hand protection Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique to avoid skin contact with this product.
- Eye protection Safety glasses with side-shields conforming to NIOSH (US) or EN166 (EU)
- Skin and body protection Choose body protection according to the amount and concentration of the dangerous substance at the work place. Handle with gloves. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374 derived from it.
- Hygiene measures Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Section 9.- Physical and chemical properties

- **General information:**
 - Form: liquid
 - Colour: brown
 - Odour: no data available
- **Important health, safety and environmental information:**
 - Melting and ignition temperature: No data available.
 - Upper/lower flammability or explosive limits: No data available.
 - Bulk Density: Not data available.
 - Solubility in other solvent: Soluble in polar solvents.
 - Relative vapour density: Not determined.

Section 10.- Stability and reactivity

- **Reactivity and chemical stability:** No data available
- **Possibility of hazardous reactions:** No data available.
- **Incompatible materials:** Strong oxidizing agents and/or reducing agents.
- **Conditions to avoid:** Extremes of temperature and direct sunlight and heating should be avoid.
- **Hazardous decomposition products:** Other decomposition products – no data available.
- **Further information:** Stable under recommended storage conditions.

Section 11.- Toxicological information

- **Acute toxicity:** No data available.
- **Skin corrosion/irritation:** irritant to skin and mucous membranes.
- **Serious eye damage/eye irritation:** may cause moderate eye irritation.
- **Respiratory or skin sensitization:** may cause respiratory irritation.
- **Germ cell mutagenicity and carcinogenicity:** No data available.
- **Specific target organ toxicity – single and repeated exposure:** No data available.
- **Aspiration hazard:** No data available.
- **Additional Information:** To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. No classification data on carcinogenic properties of this material is available.

Section 12.- Ecological information:

To the best of our knowledge the ecological effects have not been thoroughly researched.
Avoid contact with wastewaters or soil.

Section 13.- Disposal considerations

- **Product:** Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose this material.
- **Contaminated packaging:** Dispose of as unused product.

Section 14.- Transport information

Not a hazardous material for transportation.

Section 15.- Regulatory information

This safety datasheet has been revised to comply with the requirements establish in (EC) 453/2010.

Section 16.- Other information

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The contents and format of this MSDS are in accordance with EC 453/2010.

Disclaimer: Metrohm DropSens S.L. provides the information contained herein in good faith and makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals

MATERIAL SAFETY DATA SHEET

Graphene oxide solution

According to EC N°

453/2010 Edition date

30/07/2020 Version 4.0

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