

SAFETY DATA SHEET

Graphene Oxide		[WHMIS Classification] Not WHMIS controlled	
Product Use For laboratory research purposes only			
Manufacturer's Name Graphene Leaders Canada (GLC) Inc.		Supplier's Name Graphene Leaders Canada (GLC) Inc.	
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SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients (<i>specific</i>)	%	CAS Number	LD ₅₀ of Ingredient (<i>specify species and route</i>)	LC ₅₀ of Ingredient (<i>specify species</i>)
Graphene Oxide Sheets- Anhydrous	100%	No Data Available	No Data Available	No Data Available

SECTION 3 – HAZARDS IDENTIFICATION

WHMIS Classification

Not WHMIS controlled.

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS).

HMIS Classification

Health Hazard – 0

Flammability – 0

Physical Hazards – 0

Appearance: Brown solid

Odor (threshold): None

Solubility in Water: Soluble

Potential Health Effects

Inhalation- May be harmful if inhaled. May cause respiratory tract irritation.

Skin- May be harmful if absorbed through skin. May cause skin irritation.

Eyes- May cause eye irritation.

Ingestion- May be harmful if swallowed.

SECTION 4 – FIRST AID MEASURES

In case of eye contact: Immediately flush eyes with water as a precaution. Consult a doctor.

In case of skin contact: Immediately flush skin with soap and plenty of water.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Seek medical advice.

If inhaled: If breathed in, move person to fresh air. If not breathing, give artificial respiration. Seek medical advice.

SECTION 5 – FIRE FIGHTING MEASURES

Conditions of Flammability: Not flammable or combustible.

Extinguishing media: Use water spray, dry chemical, alcohol resistant foam, or carbon dioxide.

Hazardous Combustion Products: Hazardous decomposition products formed under fire conditions. Nature of the decomposition products is unknown.

Explosion data- Sensitivity to Mechanical Impact: No data available.

Explosion data- Sensitivity to Static Discharge: No data available.

Special Protective Equipment for Fire Fighters: If necessary, wear self-contained breathing apparatus for firefighting.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid dust formation. Avoid breathing vapours, mist, or gas.

Environmental precautions: Do not let product enter drains.

Methods and material for containment and cleaning up: Sweep up and shovel into suitable containers. Keep in suitable, closed containers for disposal.

SECTION 7 – HANDLING AND STORAGE

Precautions for safe handling: Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage: Containers should be stored tightly sealed in a dry place and well-ventilated place. Avoid prolonged exposure to light.

SECTION 8 – EXPOSURE CONTROL / PERSONAL PROTECTION

Personal protective equipment

Respiratory protection: Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95(US), or type P1(EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)

Hand protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands after use.

Eye protection: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US), or EN 166 (EU)

Skin and body protection: Choose body protection in relation to its type, to the amount and concentration of dangerous substances, and to the specific work place. The type of protective equipment must be chosen according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

Specific engineering controls: Use mechanical exhaust or laboratory fumehood to avoid exposure.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form: Solid, paper/flakes

Colour: Brown

Safety Data

pH: No data available

Melting point/Freezing point: No data available

Boiling point: No data available

Flash point: No data available

Ignition temperature: No data available

Auto-ignition temperature: No data available

Lower explosion limit: No data available

Upper explosion limit: No data available

Vapour pressure: No data available

Density: No data available

Water solubility: Soluble.

Partition coefficient (n-octanol/water): No data available

Relative vapour density: No data available

Odour: No data available

Odour threshold: No data available

Evaporation rate: No data available

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: No data available.

Conditions to avoid: Avoid prolonged exposure to light.

Hazardous Decomposition Products: Hazardous decomposition products formed under fire conditions. Nature of decomposition products not known. Other decompositions products: No data available.

Materials to avoid: Strong oxidizing agents.

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity

Inhalation LD50: No data available.

Oral LD50: No data available.

Dermal LD50: No data available.

Other information on acute toxicity: No data available.

Skin corrosion/irritation: No data available.

Serious eye damage/irritation: No data available.

Respiratory or skin sensitization: No data available.

Germ cell mutagenicity: No data available.

Carcinogenicity:

IARC: No component of this product present at any levels greater than or equal to 0.1 % is identified as probable, possible, or confirmed carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Reproductive toxicity: No data available.

Teratogenicity: No data available.

Specific organ toxicity- single exposure (Globally Harmonized System): No data available.

Specific organ toxicity- repeated exposure (Globally Harmonized System): No data available.

Aspiration Hazard: No data available.

Potential Health Effects:

Inhalation- May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion- May be harmful if swallowed.

Skin- May be harmful if absorbed through the skin. May cause skin irritation.

Signs and symptoms of exposure: To the best of our knowledge the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects: No data available.

Additional information: RTECS Not available.

SECTION 12 – ECOLOGICAL INFORMATION

Toxicity: No data available.

Persistence and degradability: No data available.

Bioaccumulative potential: No data available.

Mobility in soil: No data available.

PBT and vPvB assessment: No data available.

Other adverse effects: No data available.

SECTION 13 – DISPOSAL CONSIDERATIONS

Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Do not dispose of in municipal waste.

Contaminated packaging: Dispose of as unused product.

SECTION 14 – TRANSPORT INFORMATION

DOT: Not dangerous goods.

IMDG: Not dangerous goods.

IATA: Not dangerous goods.

SECTION 15 – REGULATORY INFORMATION

WHMIS Classification: Not WHMIS controlled.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Regulations.

SECTION 16 – OTHER INFORMATION

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