

Safety Data Sheet

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1. Identification of Substance

Names: Aqueous Potentialized Graphene

Bucky Ring Trade Names: Liquid form of Icey, Thrain, and Fractal Grid

Synonyms: Graphene in Water, Aquae Graphene

CAS Number: 7782-42-5 (Graphite)

CAS Number: 7732-18-5 (distilled water)

Bucky Ring

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Holly Hill, FL 32117

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Suggested Use: hemp crete additive,

industrial materials additive, Ink additive,

fabric dye, resin additive, superconductor research

circuit assembly, graphene sheet growth, printed

PCB repair

2. Hazard Identification



GHS Hazard classification: n/a

Signal Word: WARNING

Hazard Statement: This product is a skin and eye irritant and is harmful if ingested. The liquid and vapor are flammable. The vapor may be harmful if inhaled.

Precautions: Keep container tightly sealed when not in use. Store away from heat, sparks, hot surfaces, and flames.

Caution: This product has not been fully evaluated regarding long term health impacts, and may have genotoxic effects.

Potential Health Effects and Physical hazards: may irritate skin causing dryness irritation and rash in cases of prolonged and repeated contact, eye irritation, may be harmful if swallowed.

3. Composition

Ingredients: Graphite CAS # 7782-42-5 2% distilled water CAS #7732-18-5 98%

4. First-Aid Measures

Eye Contact: Flush eyes with water using eye wash or tap water for up to 20 minutes, remove contact lenses

Skin Contact: Wash skin with soap and water. Seek medical attention as needed.

Inhalation: Seek fresh air. Seek medical attention as needed.

Ingestion: Rinse mouth and seek medical advice.

5. Fire-Fighting Measures

Extinguisher Method: water fog (not solid stream), carbon dioxide, dry chemical, foam

Decomposition products: Carbon Dioxide, Carbon Monoxide

Special protective equipment for fire-fighters: Self-contained breathing apparatus for large fires

6. Accidental Release Measures

Personal Precautions: Wear protective equipment such as gloves, goggles, and mask (3M N95). Ensure adequate ventilation. Keep away from ignition sources. Keep unprotected persons away

Environmental Precautions: Product should not enter drain, ground-water, runoff areas, or soil

Clean up method: For small spills clean up with damp soapy cloth. Treat contaminated items as hazardous waste.

7. Handling and Storage

Handling: Use personal protective equipment such glove, goggles with side and respirator (3M N95). Avoid contact with skin and eyes. Do not sonicate material in uncovered containers.

Storage: Store away from oxidizing and reducing agents, halogens, acids, and bases. Store away from ignition sources and heat. Store in cool, dry well-ventilated place. Keep packaging closed securely.

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8. Exposure Controls/ Personal Protection

Exposure Limits: OSHA Permissible Exposure Limits Time Weighted Average (TWA) 5 mg/m³; Respirable TWA 10 mg/m³, American Conference of Governmental Industrial Hygienists Threshold Limit value TWA 2mg/m³ 8 hours form respirable fraction.

Engineering Controls: Local or general exhaust system with HEPA filter as required to maintain airborne concentration below recommended limits. Manipulate under fume hood if possible. Otherwise use particle respirator such as 3M N95.

Personal Protective Measures: Nitrile or Vinyl gloves, lab coat, particle respirator, safety goggles with sides

Special requirements: Keep away from foods and beverages, wash hands after use, and remove soiled clothing immediately after use.

9. Physical and Chemical Properties

Appearance: Black Liquid when agitated settling after 24 hrs

Odor: none

Vapor density: N/A

Relative density: 1.02

Solubility: Graphene forms suspension in water, Sodium is soluble

Flash point: N/A

Estimated Ignition temperature: 365 - 600 C

Partition coefficient: N/A

Upper/lower flammability or explosive limits: N/A

Vapor pressure: not determined

pH: 7

Estimated melting point: 3600 C

Boiling point: N/A

Evaporation rate: comparable to water

Viscosity: N/A

Decomposition Temperature: N/A

10. Stability and Reactivity

Stability: This material is considered stable under normal storage conditions.

Materials to Avoid: Strong oxidizing and reducing agents, halogens, acids, Interhalogens, alkali metals,

Conditions to Avoid: Heat, open Flame, Ignition sources

Hazardous Decomposition products; When burned Carbon Monoxide and Carbon Dioxide are made.

11. Toxicology

Toxicology Information: Long Term hazards related to graphene have not yet been fully determined.

Acute toxicity -

Skin: skin contact may cause irritation, dryness, or rash

Eyes: Irritating effect

Respiratory or skin sensitization: May cause skin sensitization and irritation to mucuous membranes

Inhalation: Not likely hazardous in liquid form unless sonicated uncovered. Dry form can cause irritation to mucous membranes, over exposure may cause pneumonconiosis

Ingestion: may be harmful if swallowed