RADICLE AGRONOMICS™

Date of Issue: 6/1/2022 Revision Date: 9/1/2023 Version 1.0

1. Identification

Product Name: MicroGlow Diluent: MG, Diluent, 786015SS
Contains CAS-No: 7697-37-2
Identified Uses: Reagent for analysis, laboratory chemicals
Recommended Use: professional, scientific and technical activities
Restriction on Use: Not for food, drug, or household use

Supplier:
Precision Planting
23207 Townline Road
Tremont, IL 61568
(309) 925-5050

Emergency Number: CHEMTREC: 1-800-424-9300 within USA or Canada
or +1-703-527-3887 outside USA or Canada

2. Hazards Identification

Classification of substance or mixture:
Skin Irritant (Category 3)

Labeling Elements: Not Applicable

Signal Word: Warning

Hazard Statement:
Causes mild skin irritation

Precautionary Statement:
Do not handle until all safety information has been read and understood. Wear protective gloves and eye protection. Do not breathe fumes, mists, or vapors. Wash thoroughly after handling.

IF ON SKIN: Wash exposed areas with soap and water after handling. May cause allergic skin reactions.
IF IN EYES: Rinse thoroughly with plenty of water, also under the eyelids.
If skin or eye irritation occurs, get medical help.

Storage: Store away from incompatible materials. Keep away from children.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Supplemental Hazard Statements: Call a poison center or doctor if you feel unwell. If skin or irritation occurs or persists, seek medical attention or advice.

Hazards not otherwise classified: None identified

3. Composition/Information on Ingredients

Name:	Formula	Molar Mass	CAS Number	% Weight
Water	H_2O	18.015 g/mol	7732-18-5	> 98
Nitric Acid	HNO_3	61.03 g/mol	7697-37-2	< 2

* Specific chemical identity and/or percentage of composition may be withheld as a trade secret
**No components need to be disclosed according to the applicable regulations.

4. First-Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice, and show the label where possible.
Ensure medical personnel are aware of the material(s) involved and take precautions to protect themselves. Wash contaminated clothing before reuse.

If swallowed: Rinse mouth. Do NOT induce vomiting. Obtain medical attention. Call a poison center or doctor/physician if you feel unwell.
If inhaled: Move to fresh air. Keep at rest in a comfortable position for breathing. If breathing is difficult, give oxygen.
In case of skin contact: Wash off immediately with plenty of water for at least 15 minutes. Wash contaminated clothing before reuse.
In case of eye contact: Rinse cautiously with water for several minutes, also under eyelids. Remove contact lenses, if present and easy to do. Continue rinsing.

Symptoms/Effects: Not expected to present a significant hazard under anticipated conditions of normal use. Notes to physician, treat symptomatically.

Refer to Sections 2 and/or 11 for hazard information and/or toxicological information.

5. Fire-Fighting Measures

Fire Hazard: Not flammable
Explosion Hazard: Not applicable
Reactivity: None

Suitable Extinguishing Media: Use agent most appropriate to extinguish surrounding fire.
Unsuitable Extinguishing Media: Not available

Advice for firefighters: In case of fire, stop leak if safe to do so. Exercise caution when fighting any chemical fires. Do not enter fire area without proper protective equipment including respiratory protection.

Specific Hazards Arising from the Chemical: Non-combustible substance; does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. Keep product and empty container away from heat and source of ignition.
Hazardous Combustion Products: Nitrous oxides (NOx)

Refer to Section 10 for stability and reactivity information.

6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures:
Ensure adequate ventilation. Wear chemically protective gloves, lab coat or apron to prevent prolonged or repeated skin contact. Wash contaminated clothes, keep unnecessary and unprotected personnel from entering area. Avoid breathing vapors.

Environmental precautions and methods for containment and clean-up:
Clean up spills with proper protection. Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers. Use proper personal protection. Contain spill area with inert absorbent material. Sweep or shovel into properly labeled, suitable containers.

Refer to Section 12 for ecological information.
Refer to Section 8 for exposure controls and personal protection.

7. Handling and Storage

Precautions for Handling: Wear personal protection equipment. Do not get in eyes, on skin, or on clothing. Avoid breathing vapors or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not eat, drink, or smoke during use. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and when leaving work.

Precautions for Storage: Store in well-ventilated, cool areas. Keep container tightly closed and sealed until ready for use.

Storage Conditions:
Maintain a temperature between 5 – 30 ^{o}C
Store only in original container
Keep away from direct sunlight
Protect from freezing and physical damage

Incompatible Products: Strong oxidizing agents, Strong bases, Strong reducing agents, Combustible materials

Keep out of reach of children

Refer to Section 10 for stability and reactivity incompatibilities.

8. Exposure Controls/Personal Protection

Occupational exposure limits:
Nitric Acid (CAS 7697-37-2):
PEL (TWA): 2 ppm, 5 mg/m^3
PEL (STEL): 4 ppm, 10 mg/m^3
PEL (TWA): 2 ppm, 5 mg/m^3

Personal Protective Equipment: Wear appropriate eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulation in 29 CFR 1910.144 or European Standard EN166.
Skin and Body Protection: Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory Protection: No personal respiratory protective equipment normally required. In case of insufficient ventilation, wear suitable respiratory equipment.

Other Information: Do not eat, drink, or smoke during use. Handle in accordance with good industrial hygiene and safety practices, such as washing after handling the material. Routinely wash work clothing and protective equipment to remove contaminants.

Refer to Section 7 for handling as storage.

9. Physical and Chemical Properties

Physical State: Liquid
Appearance: Clear, colorless
Odor: Odorless
pH: < 2.0
Freezing Point: 32 ^oF (0 ^oC) estimated
Initial Boiling Point: 212 ^oF (100 ^oC) estimated
Flashpoint: Not applicable
Evaporation Rate: No information available
Flammability: No information available
Vapor Pressure/Density: No information available
Specific gravity/Density: 0.9991 g/mL
Solubility: Soluble in water
Partition Coefficient: n-octanol/water: No information available
Autoignition Temperature: No information available
Decomposition Temperature: No information available
Viscosity: No information available
Explosive Properties: No information available
Oxidizing Properties: No information available
Other: No additional information available

10. Stability and Reactivity

Reactivity: None known, based on information available.
Chemical Stability: Stable under normal conditions.
Possibility of hazardous reactions: No dangerous reaction known under condition of normal use.
Conditions to Avoid: Incompatible material, excessive heat.
Incompatible Materials: Strong oxidizing agents, Strong bases, Strong reducing agents, Combustible materials
Hazardous Decomposition Products: Nitrous oxide (NOx), hydrogen
Hazardous Polymerization: Hazardous polymerization does not occur

11. Toxicological Information

Acute Toxicity:

P, Std 1-6 (CAS mixture):
Oral LD50 – Based on ATE data, the classification criteria are not met. ATE > 2,000mg/kg
Dermal LD50 – Based on ATE data, the classification criteria are not met. ATE > 2,000mg/kg
Vapor LC50 – Based on ATE data, the classification criteria are not met. ATE > 20 mg/L

Nitric Acid (CAS 7697-37-2):
Oral LD50 – Not listed
Dermal LD50 – Not listed
Inhalation LC50 – Rat 2,500 mg/kg, 1 hour

Information of likely routes of exposure:
Inhalation: No information available
Skin contact: May cause mild allergic reaction
Eye contact: May cause slight irritation
Ingestion: No information available

Skin Corrosion/irritation: Prolonged skin contact my cause temporary irritation.
Serious eye damage/eye irritation: May cause slight irritation
Respiratory or skin sensitization: May cause mild skin irritation
Germ cell mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity: Ingredients not listed as carcinogens
No ingredient of this product present at levels greater than or equal to 0.1% is identified as probably, possible, or confirmed human carcinogen by IARC, NTP, or OSHA.
Reproductive Toxicity: This product is not expected to cause reproductive or development effects.
Specific target organ toxicity – single exposure: Not classified
Specific target organ toxicity – repeated exposure: Not classified
Aspiration hazard: Not an aspiration hazard
Chronic effects: Prolonged inhalation may be harmful

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

12. Ecological Information

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

Ecotoxicity:
Nitric Acid (CAS 7697-37-2):
LC50 – Bambusia affinis 72mg/L, 96 hours
EC50 – Daphnia 180 mg/L, 48 hours

Persistence and Degradability: Miscible with water. Persistence is unlikely based on information available.

Bioaccumulative Potential: No data available

Mobility in soil: Will likely be mobile in the environment due to its water solubility.

Other adverse effects: No data available

13. Disposal Considerations

Waste disposal recommendation: Dispose in a safe manner in accordance with local/national regulations. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Ecology waste materials: Avoid release to the environment.
Local disposal regulations: Dispose in accordance with all applicable regulations.
Hazardous waste code: Not regulated

Waste from residues/unused products: Emptied containers may retain product residue. Improper disposal or reuse of this container may be dangerous and illegal. Dispose of in accordance with local regulations. Empty container or liners may retain some product residues.

14. Transportation

Department of Transportation (DOT): In accordance with DOT, not regulated as dangerous goods

Transportation of Dangerous Goods (TDG): Not regulated as dangerous goods

International Maritime Dangerous Goods (IMDG): Not regulated as dangerous goods

International Air Transport Association (IATA): Not regulated as dangerous goods

15. Regulatory Information

All components of this product are listed, or excluded from listing on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Superfund Amendments and Reauthorization Act of 1986 (SARA): Components subject to the reporting requirements of Section Title III:
Nitric Acid: Reportable Quantity, >1000 lb; Threshold Value > 1.0% - (Criteria not met)

SARA 302: No components are subject to reporting Title III
SARA 313: Nitric Acid (CAS 7697-37-2) Wt% < 0.8 (Threshold Value 1.0%)
SARA 311/312 Hazard Categories:
Acute Health Hazard: No
Chronic Health Hazard: No
Fire Hazard: No
Sudden Release of Pressure Hazard: No
Reactive Hazard: No

Clean Water Act (CWA):
Nitric Acid (CAS 7697-37-2) Reportable Quantities 1,000 lb – (Criteria not met)

Comprehensive Environmental Response Compensation and Liability Act (CERCLA):
Nitric Acid (CAS 7697-37-2) Reportable Quantities 1,000 lb – (Criteria not met)

Clean Air Act: Not applicable

Right-To-Know: US State Regulations
Nitric Acid (CAS 7697-37-2): LISTED – Massachusetts, New Jersey, Pennsylvania, Illinois, Rhode Island
Water (CAS 7732-18-5): LISTED – Pennsylvania, New Jersey

California Prop 65 Components: California Safe Drinking Water and Toxic Enforcement Act of 1986
No components listed for causing cancer, birth defects or any reproductive harm

16. Other Information

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Disclaimer:
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End of Safety Data Sheet