

Safety Data Sheet

Issue Date: 09-Apr-2024

Revision Date: 09-Apr-2024

Version 1

1. IDENTIFICATION

Product identifier

Product Name GROW A 2.0 (4-0-2)

Other means of identification

SDS # RXG-034

Recommended use of the chemical and restrictions on use

Recommended Use For industrial use.

Details of the supplier of the safety data sheet

Supplier Address

Rx Green Technologies, LLC
15 Tinker Ave.
Londonderry, NH 03053
Phone: (603) 769-3450 Fax: (603) 769-3450

Emergency telephone number

Emergency Telephone INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Clear green liquid

Physical state Liquid

Classification

Acute toxicity - Oral	Category 4
Skin sensitization	Category 1

Signal Word

Warning

Hazard statements

Harmful if swallowed
May cause an allergic skin reaction



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing must not be allowed out of the workplace
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF ON SKIN: Wash with plenty of water and soap

If skin irritation or rash occurs: Get medical advice/attention

Wash contaminated clothing before reuse

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other hazards

Harmful to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Calcium nitrate	15245-12-2	25-30
Magnesium nitrate (hexahydrate)	13446-18-9	2-6
Potassium Nitrate	7757-79-1	1-5
Trade Secret	Proprietary	<1
Trade Secret	Proprietary	<1
Manganese EDTA	15375-84-5	<1
Citric Acid	77-92-9	<1
Ethylenediaminetetraacetic acid copper salt, tetrahydrate	14025-15-1	<0.1

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General Advice	Provide this SDS to medical personnel for treatment.
Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin Contact	Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Inhalation	Remove to fresh air.
Ingestion	Call a poison center or doctor/physician if you feel unwell. Rinse mouth.

Most important symptoms and effects, both acute and delayed

Symptoms	Harmful if swallowed. May cause an allergic skin reaction. Causes mild skin irritation.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Not determined.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Use personal protective equipment as required.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing and eye/face protection.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Citric Acid 77-92-9	-	15 mg / m3 (Total)	-
Manganese EDTA 15375-84-5	-	Ceiling: 5 mg/m ³ Mn	IDLH: 500 mg/m ³ Mn TWA: 1 mg/m ³ Mn STEL: 3 mg/m ³ Mn
Ethylenediaminetetraacetic acid copper salt, tetrahydrate 14025-15-1	TWA: 1 mg/m ³ Cu dust and mist	-	IDLH: 100 mg/m ³ Cu dust and mist TWA: 1 mg/m ³ Cu dust and mist

Appropriate engineering controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Refer to 29 CFR 1910.133 for eye and face protection regulations.

Skin and Body Protection Refer to 29 CFR 1910.138 for appropriate skin and body protection.

Respiratory Protection Refer to 29 CFR 1910.134 for respiratory protection requirements.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical state	Liquid	Odor	Not determined
Appearance	Clear green liquid	Odor Threshold	Not determined
Color	Green		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	2.3-3.2	
Melting point / freezing point	No data available	
Initial boiling point and boiling range	No data available	
Flash point	No data available	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Not determined	
Flammability Limit in Air		
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor Pressure	Not determined	
Vapor Density	No data available	
Relative Density	Not determined	
Water Solubility	Not determined	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Autoignition temperature	No data available	
Decomposition temperature	Not determined	
Kinematic viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

10. STABILITY AND REACTIVITY**Reactivity**

Not reactive under normal conditions.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Keep out of reach of children.

Incompatible materials

None known based on information supplied.

Hazardous decomposition products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

Eye Contact Avoid contact with eyes.

Skin Contact Avoid contact with skin.

Inhalation Do not inhale.

Ingestion Harmful if swallowed.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Calcium nitrate 15245-12-2	300 - 2000 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
Magnesium nitrate (hexahydrate) 13446-18-9	= 5440 mg/kg (Rat)	-	-
Potassium Nitrate 7757-79-1	= 3015 mg/kg (Rat)	> 5000 mg/kg (Rat)	> 0.527 mg/L (Rat) 4 h
Trade Secret	= 481 mg/kg (Rat)	-	= 1.23 mg/L (Rat) 4 h
Trade Secret	232 - 249 mg/kg (Rat) = 120 mg/kg (Rat)	= 200 mg/kg (Rabbit)	= 0.11 mg/L (Rat) 4 h
Citric Acid 77-92-9	= 3 g/kg (Rat)	> 2000 mg/kg (Rat)	-
Manganese EDTA 15375-84-5	-	-	> 5.16 mg/L (Rat) 4 h
Ethylenediaminetetraacetic acid copper salt, tetrahydrate 14025-15-1	-	-	> 5.3 mg/L (Rat) 4 h

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Causes mild skin irritation.

Sensitization May cause an allergic skin reaction.

Carcinogenicity Nitrate or nitrite ingested under conditions that result in endogenous nitrosation are considered carcinogens.

Chemical name	ACGIH	IARC	NTP	OSHA
Calcium nitrate 15245-12-2		Group 2A		X
Magnesium nitrate (hexahydrate) 13446-18-9		Group 2A		X
Potassium Nitrate 7757-79-1		Group 2A		X

Legend

IARC (International Agency for Research on Cancer)
Group 2A - Probably Carcinogenic to Humans
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

Oral LD50 1,084.80 mg/kg
Dermal LD50 6,788.90 mg/kg ppm
ATEmix (inhalation-dust/mist) 5.55 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects.

Component Information

Chemical name	Algae/aquatic plants	Fish	Crustacea
Trade Secret	EC50: 0.11 - 0.16mg/L (72h, Pseudokirchneriella subcapitata) EC50: 0.03 - 0.13mg/L (96h, Pseudokirchneriella subcapitata)	LC50: =1.6mg/L (96h, Oncorhynchus mykiss)	EC50: =4.71mg/L (48h, Daphnia magna) EC50: 0.12 - 0.3mg/L (48h, Daphnia magna) EC50: 0.71 - 0.99mg/L (48h, Daphnia magna)
Citric Acid 77-92-9		LC50: =1516mg/L (96h, Lepomis macrochirus)	
Ethylenediaminetetraacetic acid copper salt, tetrahydrate 14025-15-1		LC50: =555mg/L (96h, Lepomis macrochirus)	

Persistence/Degradability

Not determined.

Bioaccumulation

There is no data for this product.

Mobility

Chemical name	Partition coefficient
Trade Secret	0.75
Trade Secret	-0.26
Manganese EDTA 15375-84-5	-8.12
Citric Acid 77-92-9	-1.72

Other adverse effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated Packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Status

Chemical name	California Hazardous Waste Status
Potassium Nitrate 7757-79-1	Ignitable Reactive
Ethylenediaminetetraacetic acid copper salt, tetrahydrate 14025-15-1	Toxic

14. TRANSPORT INFORMATION

<u>Note</u>	Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.
<u>DOT</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG</u>	Not regulated

15. REGULATORY INFORMATION

International Inventories

Chemical name	TSCA	TSCA Inventory Status	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
Calcium nitrate	X	ACTIVE	X	X			X		
Magnesium nitrate (hexahydrate)					X	X		X	X
Potassium Nitrate	X	ACTIVE	X	X	X	X	X	X	X
Ferrous EDTA					X				
Trade Secret	X	ACTIVE	X	X	X	X	X	X	X
Trade Secret	X	ACTIVE	X	X	X	X	X	X	X
Citric Acid	X	ACTIVE	X	X	X	X	X	X	X
Manganese EDTA	X	ACTIVE	X	X	X	X			X
EDTA Zinc	X	INACTIVE	X		X				
Ethylenediaminetetraacetic acid copper salt, tetrahydrate	X	ACTIVE	X	X	X	X	X	X	X

Legend:

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*
- ENCS - Japan Existing and New Chemical Substances*
- IECSC - China Inventory of Existing Chemical Substances*
- KECL - Korean Existing and Evaluated Chemical Substances*
- PICCS - Philippines Inventory of Chemicals and Chemical Substances*
- AICS - Australian Inventory of Chemical Substances*

US Federal Regulations**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	CAS No	Weight-%	SARA 313 - Threshold Values %
Magnesium nitrate (hexahydrate) - 13446-18-9	13446-18-9	2-6	1.0
Potassium Nitrate - 7757-79-1	7757-79-1	1-5	1.0
Manganese EDTA - 15375-84-5	15375-84-5	<1	1.0
EDTA Zinc - 12519-36-7	12519-36-7	<0.1	1.0
Ethylenediaminetetraacetic acid copper salt, tetrahydrate - 14025-15-1	14025-15-1	<0.1	1.0

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ethylenediaminetetraacetic acid copper salt, tetrahydrate		X		

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Calcium nitrate 15245-12-2	X		
Magnesium nitrate (hexahydrate) 13446-18-9	X		
Potassium Nitrate 7757-79-1	X	X	X
Manganese EDTA 15375-84-5	X		X
EDTA Zinc 12519-36-7	X		X
Ethylenediaminetetraacetic acid copper salt, tetrahydrate 14025-15-1	X		X

16. OTHER INFORMATION

<u>NFPA</u>	Health hazards -	Flammability -	Instability -	Special hazards -
<u>HMIS</u>	Health hazards -	Flammability -	Physical hazards -	Personal Protection Not determined

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 Revision Note: New format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet