SAFETY DATA SHEET

According to Safe Work Australia

Revision: 09/01/2023

1. IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Name: Ionic GROW

Other Means of Identification: Mixture

Recommended Use of the Chemical and Restriction on Use: Hydroponic nutrient concentrate

Details of Manufacturer:
Growth Technology Pty Ltd
1-45 Stockdale Road
O'Connor,6163, WA, Australia

Phone Number: +61 8 9331 3091

Emergency telephone number: National Poison Information Centre: 13 11 26

2. HAZARDS IDENTIFICATION

Hazardous Nature:
Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.
Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)


corrosion

Eye Dam. 1 H318 Causes serious eye damage.

Acute Tox. 4 H302 Harmful if swallowed.

Signal Word Danger

Hazard Statements
H302 Harmful if swallowed.
H318 Causes serious eye damage.

Precautionary Statements

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330	Rinse mouth.
P501	Dispose of contents/container in accordance with local/regional/national regulations.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Characterization: Mixtures
Description: Mixture of substances listed below with nonhazardous additions.

(Contd. on page 2)

Hazardous Components:		
13477-34-4	Nitric acid, calcium salt, tetrahydrate, Calcium dinitrate tetrahydrate Eye Dam. 1, H318; Acute Tox. 4, H302	25%
14025-21-9	Zincate(2-), [[N,N'-1,2-ethanediylbis[N-(carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON']-, disodium, (OC-6-21)- Eye Irrit. 2A, H319	0.035%
1303-96-4	Disodium tetraborate, decahydrate Repr. 1B, H360	0.025%
14025-15-1	Sodium copper ethylenediaminetetraacetate Acute Tox. 3, H301	0.025%
13446-49-6	Molybdic acid, dipotassium salt Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	0.003%

4. FIRST AID MEASURES

Inhalation: If inhaled, remove to fresh air. Seek medical attention if breathing problems develop.

Skin Contact:
In case of skin contact, remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if symptoms occur.

Eye Contact:
In case of eye contact, immediately hold eyelids open and rinse with water for at least 15 minutes. Seek immediate medical attention.

Ingestion:
If swallowed, do not induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek medical attention.

Symptoms Caused by Exposure:
Skin Contact: May cause mild, transient irritation.
Eye Contact: Causes serious eye damage
Ingestion: Harmful if ingested.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Specific Hazards Arising from the Chemical:
Formation of toxic gases is possible during heating or in case of fire including those of oxides of carbon, nitrogen, calcium, phosphorus and sulfur.
This product does not burn.

Special Protective Equipment and Precautions for Fire Fighters:
When fighting a major fire wear self-contained breathing apparatus and protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:
Wear appropriate personal protective equipment. Evacuate all non-essential personnel from affected area. Do not breathe vapours/mists. Ensure adequate ventilation.

Environmental Precautions:
In the event of a major spill, prevent spillage from entering drains or water courses.

(Contd. on page 3)

Methods and Materials for Containment and Cleaning Up:
Stop leak if safe to do so and absorb spill with sand, earth, vermiculite or some other absorbent material. Collect the spilled material and place into a suitable container for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling:
Use of safe work practices are recommended to avoid eye or skin contact. Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

Conditions for Safe Storage:
Store in a cool, dry and well ventilated area. Keep in original container tightly closed when not in use. Protect from direct sunlight and extreme heat. Keep away from strong alkalies, oxidizers and reducing agents.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Standards:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Engineering Controls: Ensure adequate ventilation of the working area.

Respiratory Protection:
Not required under conditions of normal use..

Skin Protection:
PVC, PVA, nitrile, neoprene, rubber or vinyl gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information. When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.
Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard AS/NZS 4501 for more information.

Eye and Face Protection:
Eye and face protectors for protection against splashing materials or liquids. See Australian/New Zealand Standard AS/NZS 1337 for more information.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Aqueous solution
Form:	Liquid
Colour:	Brown/Green
Odour:	Slight
Odour Threshold:	No information available
pH-Value:	3-4
Melting point/Melting range:	Not applicable
Initial Boiling Point/Boiling Range:	No information available
Flash Point:	Not applicable
Flammability:	Product is not flammable.
Auto-ignition Temperature:	Not applicable

(Contd. on page 4)

Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	Not applicable
Upper:	Not applicable
Vapour Pressure:	No information available
Relative Density:	1.07
Vapour Density:	No information available
Evaporation Rate:	No information available
Solubility in Water:	Soluble in water

10. STABILITY AND REACTIVITY

Possibility of Hazardous Reactions: Hazardous polymerisation will not occur.

Chemical Stability: Stable at ambient temperature and under normal conditions of use.

Conditions to Avoid: Direct sunlight and extreme temperatures.

Incompatible Materials: Alkalies, oxidizers and reducing agents.

Hazardous Decomposition Products: Oxides of nitrogen, calcium, phosphorus and sulfur.

11. TOXICOLOGICAL INFORMATION

Toxicity:

LD_{50}/LC_{50} Values Relevant for Classification:		
7757-79-1 Potassium nitrate, Nitric acid, potassium salt		
Oral	LD_{50}	3750 mg/kg (rat)
13477-34-4 Nitric acid, calcium salt, tetrahydrate, Calcium dinitrate tetrahydrate		
Oral	LD50	> 300 - < 2000 mg/kg (rat)

Acute Health Effects
Inhalation: No adverse health effects expected.
Skin: May cause mild skin irritation.
Eye: Causes serious eye damage.
Ingestion: Harmful if ingested.

Skin Corrosion / Irritation: Based on classification principles, the classification criteria are not met.

Serious Eye Damage / Irritation: Causes serious eye damage.

Respiratory or Skin Sensitisation: Based on classification principles, the classification criteria are not met.

Germ Cell Mutagenicity: Based on classification principles, the classification criteria are not met.

Carcinogenicity: This product does NOT contain any IARC listed chemicals.

Reproductive Toxicity: Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Single Exposure:
Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Repeated Exposure:
Based on classification principles, the classification criteria are not met.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.

Chronic Health Effects: No information available

Existing Conditions Aggravated by Exposure: No information available

(Contd. on page 5)

12. ECOLOGICAL INFORMATION

Ecotoxicity: No information available

Aquatic toxicity: No information available

Persistence and Degradability: No information available

Bioaccumulative Potential: Potassium nitrate has a low potential for bioaccumulation.

Mobility in Soil:
Nitrate has a low potential for adsorption. Portion not taken up by plants, can leach to groundwater. Potassium may be absorbed by plants.

13. DISPOSAL CONSIDERATIONS

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.

Special Precautions for Landfill or Incineration:
Please consult your state Land Waste Management Authority for more information.

14. TRANSPORT INFORMATION

UN Number Not regulated

Proper Shipping Name Not regulated

Dangerous Goods Class Not regulated

Packing Group: Not regulated

15. REGULATORY INFORMATION

Australian Inventory of Chemical Substances:	
7732-18-5	Water
7757-79-1	Potassium nitrate, Nitric acid, potassium salt
13477-34-4	Nitric acid, calcium salt, tetrahydrate, Calcium dinitrate tetrahydrate
12389-75-2	Ferric sodium diethylenetriamine pentaacetic acid
10034-99-8	Sulfuric acid, magnesium salt, heptahydrate
7778-80-5	Sulfuric acid, dipotassium salt
7778-77-0	Phosphoric acid, monopotassium salt
15375-84-5	Manganate(2-), [[N,N'-1,2-ethanediylbis[N-(carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON']-, disodium, (OC-6-21)-
1303-96-4	Disodium tetraborate, decahydrate
14025-21-9	Zincate(2-), [[N,N'-1,2-ethanediylbis[N-(carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON']-, disodium, (OC-6-21)-
14025-15-1	Sodium copper ethylenediaminetetraacetate
13446-49-6	Molybdic acid, dipotassium salt
479-66-3	Fulvic acid

Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:
Not Scheduled.

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16. OTHER INFORMATION

Date of Preparation: 06.08.2015

Current Revision Date: 09/01/2023

Prepared by:

Abbreviations and acronyms:

GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
LD_{50}: Lethal dose, 50 percent
IARC: International Agency for Research on Cancer
STEL: Short Term Exposure Limit
TWA: Time Weighted Average
NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)

Disclaimer

This SDS is prepared in accord with the Safe Work Australia document “Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - December 2011”

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