



ECOLUTION.AG INC.
ONTARIO, CANADA



MATERIAL SAFETY DATA SHEET (MSDS)
GROWMAS™ LIQUID FORMULATION

SECTION 1: CHEMICAL PRODUCT - COMPANY IDENTIFICATION

Ecolution.ag Inc.

ON, Canada

Emergency Contact number: +1 416 841 0540

SUBSTANCE: Plant extracts and Natural Oil derived from plants
TRADE NAMES: GROWMAS™
CHEMICAL FAMILY: Naturally occurring plant extracts and oils as active ingredients
GENERIC NAME: Water soluble plant-based agricultural amendment

SECTION 2: COMPOSITION INFORMATION ON INGREDIENTS

The composition of this product is proprietary. In the event of a medical emergency, spill or fire, compositional information will be revealed to responding emergency personnel.

COMPONENTS*: Aloe Vera extracts, Hibiscus extracts, Karanja oil, Eucalyptus oil, and de-mineralized water

CAS NUMBERS:

Aloe Vera extracts 94349-62-9, Hibiscus extracts 84775-96-2, Karanja oil 247588-54-1, Eucalyptus oil 8000-48-4, Water 7732-18-5

*All ingredients listed are organic compounds, with the exception of water

PERCENTAGE: Proprietary

PROBABLE CONTAMINANT: Not known

SECTION 3: HAZARDS IDENTIFICATION

NFPA RATINGS: (SCALE 0-4): HEALTH=3, FIRE=0, REACTIVITY=0

EMERGENCY OVERVIEW: Greenish colored liquid with distinct odor. Maybe harmful if ingested. Liquid or mist may be irritating to the respiratory tract. Contact with eyes can cause burns. Exposure to the skin can cause burns and/or dryness with possible irritation. Avoid contact with eyes and/or skin. Wash thoroughly after handling. Work in well-ventilated area.

INHALATION:

Short Term Effects: May cause irritation of the nasal membranes and upper respiratory tract. Additional effects may include difficulty breathing, low blood pressure, dizziness, bluish skin color, metallic taste, loss of voice, digestive and lung congestion.

Long Term Effects: In addition to short term exposure, digestive disorders may occur.

SKIN CONTACT:

Short Term Effects: May cause burns and/or dryness and irritation

Long Term Effects: Same effects as short term exposure

EYE CONTACT: Avoid direct contact, as it may cause burns

Short Term Effects: Contact may cause burns, possibly severe. Additional effects may include irritation, tearing and/or blurred vision.

Long Term Effects: Same effects as short term exposure.

INGESTION:

Short Term Effects: Not expected to be a pathway in an agricultural/industrial environment. May be fatal if swallowed. May cause burns. Additional effects may include fever, nausea, vomiting, diarrhea, stomach pain.

Long Term Effects: Same effects as reported in short term ingestion.

CARCINOGEN STATUS:

OSHA: NO

NTP: NO

IARC: NO



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SECTION 4: FIRST AID MEASURES

- General:** In case of accident or if you feel unwell, seek medical advice immediately,
- Swallowed:** Wash mouth with water. Seek medical advice.
- Eye contact:** Wash with plenty of water. If skin irritation or rash occurs, seek medical help.
- Inhalation:** The affected person should be removed to fresh air and made to rest.

SECTION 5: FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARD:

Negligible fire and no explosion hazard when exposed to heat or flame.

EXTINGUISHING MEDIA:

Dry chemical, carbon dioxide, water spray or regular foam, as appropriate for surrounding material.

- FIREFIGHTING:** Move product from fire area if you can without risk. Extinguish fire using agent suitable for type of surrounding fire and/or chemicals. Do not use water directly on material. Avoid breathing vapors; keep upwind.

HAZARDOUS COMBUSTION PRODUCTS:

Thermal decomposition may include toxic and hazardous oxides.

SECTION 6: ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL SPILL:

Do not touch spilled material. Stop leak if you can without risk. For small spills, take-up with sand or other absorbent material and place in containers for disposal. For larger spills, dike far ahead of spill for later disposal. Move containers from spill area if possible. Wear personal protective equipment. Deny entry to nonessential personnel and isolate hazard. Wash thoroughly after handling. Use with adequate ventilation.

SECTION 7: HANDLING AND STORAGE

Avoid outdoor storage. It is recommended that storage and transfers of this product be done on an impervious surface. Store in a tightly closed container. Store away from incompatible materials.

SECTION 8: EXPOSURE CONTROLS. PERSONAL PROTECTION

- EXPOSURE LIMITS:** No occupational exposure limits have been established.
- VENTILATION:** Provide local exhaust or process enclosure ventilation.
- EYE PROTECTION:** Wear safety glasses with splash shields or safety goggles/shield to prevent contact with this product.

EMERGENCY WASH FACILITIES:

Where there is any possibility that an employee's eyes and/or skin may be exposed to this product, the employer should provide an eye wash fountain and quick drench shower within the immediate work area for emergency use.



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- CLOTHING:** Wear appropriate protective clothing and equipment to prevent repeated or prolonged skin contact with this product. Although skin contamination is not generally a problem, it increases the possibility of ingestion through poor personnel hygiene. Contaminated work clothing and shoes should not be taken from the workplace.
- GLOVES:** Wear appropriate protective gloves to prevent contact with this product.
- RESPIRATOR:** The respirator selected must be based on contamination levels found in the work place and specific to the job assignment. Do not exceed the working limits of the

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- DESCRIPTION:** Greenish colored liquid with distinctive odor.
- pH:** 4.2
- FLASH POINT :** > 100 degree centigrade
- WATER SOLUBILITY:** Water soluble/Miscible
- SPECIFIC GRAVITY (water = 1.0):**
(1.066 g/mL @ 32C)
Product stable under normal storage and usage conditions

SECTION 10: STABILITY AND REACTIVITY

- REACTIVITY:** Stable under normal temperatures and pressures.
- CONDITIONS TO AVOID:**
- INCOMPATIBILITIES:** Avoid contact with strong oxidizers, acids and/or excessive heat. Oxidizing materials, acids, metals, metal oxides, acids, bases, cyanides, reducing agents, and halogens.
- HAZARDOUS DECOMPOSITION:** Thermal decomposition products may occur beyond 200 C
- POLYMERIZATION:** Has not been reported to occur under normal temperatures and pressures.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICITY DATA:

- Oral:** Category 4 May be harmful if swallowed
- Dermal:** Category 4 May cause irritation of skin

SKIN CONTACT:

- Acute Exposure:** May cause irritation.
- Chronic Exposure:** No data available.

EYE CONTACT:

- Acute Exposure:** May cause redness and irritation.
- Chronic Exposure:** Repeated or prolonged contact may cause irritation and blindness.

INGESTION:

- Acute Exposure:** Cause vomiting and ulceration
- Chronic Exposure:** No data available.
- CARCINOGEN STATUS:** Non carcinogenic
- LOCAL EFFECTS:** Corrosive: Inhalation, skin, eye, ingestion.
- ACUTE TOXICITY LEVEL:** Toxic by ingestion.
- TARGET EFFECTS:** Poisoning may affect the liver, kidneys
- HEALTH EFFECTS:**
- INHALATION:** Do not inhale vapors of liquid. may cause irritation.



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12: ECOLOGICAL INFORMATION

ENVIRONMENTAL IMPACT RATING (0-4):

No data available

TOXICITY:

Fish N/A

Aquatic invertebrates : N/A

Algae : N/A

Long term: Classification not possible

DEGRADABILITY: No data available

SECTION 13: DISPOSAL INFORMATION

Observe all local regulations when disposing of this product.

SECTION 14: TRANSPORT INFORMATION

Not regulated by DOT for transportation in packed containers.

UN Number: Not applicable
UN proper shipping name: Not applicable
Transport Hazard Class: Not applicable (Non-Hazardous)
Packing Group: Not applicable
Environmental Hazard: Non Hazardous
Special precaution for used: No data available

SECTION 15: REGULATORY INFORMATION

Not listed

SECTION 16: OTHER INFORMATION

Individuals handling this product should be informed of the recommended safety precautions and should have access to this information.

This information relates to the specific product designated and may not be valid for such product used in combination with any other materials or in any other processes. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy themselves as to the suitability and completeness of such information for their own particular use. We do not accept liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent infringement.

Ecolution Agriculture Inc. reserves the right to refuse shipment of this product to any consumer who fails to demonstrate the ability to consistently handle and use it safely and in compliance with all applicable laws, rules and regulations. Such demonstration may require on-site inspection of any or all storage, processing, packaging and other handling systems that come in contact with it.

Customers are responsible for compliance with local, state and federal regulations that may be pertinent in the storage, application and disposal of this product.