

SAFETY DATA SHEET

SDS NUMBER: 001005-15-LPI

SDS REVISIONS: FORMAT

DATE OF ISSUE: 09/24/15

GAME UP®
SUPERSEDES: 06/08/10

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 PRODUCT IDENTIFIER:

TRADE NAME: GAME UP® PLANT GROWTH REGULATOR**1.2 RECOMMENDED USE:** MICROEMULSION CONCENTRATE FOR TURF GROWTH MANAGEMENT**1.3 SUPPLIER DETAILS:**

LOVELAND PRODUCTS, INC.

P.O. Box 1286 • Greeley, CO 80632-1286

1.4 24 Hour Emergency Phone: 1-800-424-9300 - **Medical Emergencies:** 1-866-944-8565 - **Product Information:** 1-888-574-2878 (LPI-CUST)**U.S. Coast Guard National Response Center:** 1-800-424-8802

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to 29 CFR 1910.1200

Eye Damage/Irritation	Category 2B	H320
Acute Toxicity – Oral	Category 4	H302
Acute Toxicity – Dermal	Category 4	H312
Toxic To Reproduction	Category 2	H361
Aquatic Toxicity	Category 1	H410

2.2 Label elements

**Signal word:** WARNING**Hazard Statement:**
H320 – Causes eye irritation.
H302 – Harmful if swallowed.
H312 – Harmful in contact with skin.
H361 – Suspected of damaging fertility or the unborn child by ingestion.
H410 – Very toxic to aquatic life with long lasting effects.**Precautionary Statement:**
P260 – Do not breathe dust/fume/mist/vapors/spray.
P264 – Wash eyes thoroughly after handling.**(Prevention):**
P270 – Do not eat, drink or smoke when using this product.
P201 – Obtain special instructions before use.
P202 – Do not handle until all safety precautions have been read and understood.
P281 – Use personal protective equipment as required.
P273 – Avoid release to the environment.**Precautionary Statement:**
P308+P313: IF exposed or concerned: Get medical advice/attention.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.**(Response):**
P237 – If eye irritation persists: Get medical advice/attention.
P101 – If medical advice is needed, have the product container or label at hand.
P391 – Collect spillage.**Precautionary Statement:**
(Storage): P405 – Store locked up.**Precautionary Statement:**
(Disposal): P501 – Dispose of contents in accordance with local, state, and federal regulations.

2.3 Other hazards

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Potential Health effects

Routes of exposure	Eye contact. Ingestion. Skin
Eyes	Causes eye irritation.
Skin	Harmful in contact with skin.
Inhalation	No data available.
Ingestion	Harmful if swallowed.
Target organs	Eyes, skin, GI tract.
Signs and symptoms	Causes eye irritation.
Potential environmental effects	This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have harmful or damaging effect on the environment.

3. COMPOSITION, INFORMATION ON INGREDIENTS

3.1 Substances

3.2 Mixtures

Classification according to 29 CFR 1910.1200

Chemical Name:	CAS No.	Classification	Concentration [%]
Trinexapac-ethyl	95266-40-3	Oral tox. 4; H302 Dermal tox. 4; H312 Reprod. tox. 2; H361	11.30
*Other ingredients (contains Tetrahydrofurfuryl Alcohol)	97-99-4	Eye Dam/Irrit. 2B; H320 Aquatic tox. 1; H410	88.70

*Ingredients not specifically listed are non-hazardous or are to be considered proprietary or confidential business information per 29 CFR 1910.1200(i)

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

General Advice: Get medical attention if symptoms occur.

If in eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If on skin or clothing:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
If swallowed:	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
If inhaled:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: Eyes: Causes eye irritation.
Oral: Harmful if swallowed.
Dermal: Harmful in contact with skin.

4.3 Immediate Medical Attention and Special Treatment

Treatment: Treat symptomatically. Symptoms may be delayed.
FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565
Take container, label or product name with you when seeking medical attention.

NOTES TO PHYSICIAN: If a large amount has been ingested, lavage stomach, lavage stomach. An aqueous suspension of charcoal can be given to absorb remaining toxicant. Treat symptomatically.

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5. FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:

Suitable Extinguishing Media: Use medium appropriate to surrounding fire. Dry chemical, carbon dioxide (CO₂), alcohol foam, foam, water spray or fog.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Specific Hazards During Firefighting: May release oxides of carbon and oxides of nitrogen under fire conditions.

5.3 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

Special Protective Equipment for Firefighters: Self-contained breathing apparatus and full protective gear should be worn in fighting large fires involving chemicals. Use water spray to keep fire exposed containers cool. Keep people away. Isolate fire and deny unnecessary entry.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Personal Precautions: Avoid inhalation of vapors and spray mist and contact with skin and eyes. Ensure adequate ventilation. Wear suitable protective clothing.

6.2 ENVIRONMENTAL PRECAUTIONS

Environmental Precautions: Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater. Do not apply when weather conditions favor drift from treated areas.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP

Methods for Clean-Up: Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. After removal flush contaminated area thoroughly with water.
Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to Remove residual contamination.
Never return spills to original containers for re-use.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

Advice on Safe Handling: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

7.2 CONDITIONS FOR SAFE STORAGE:

Requirements for Storage Areas and Containers: Store in a cool, dry place and avoid excess heat. Do not store below -17.8°C (0°F). If crystals form, store above 21.1°C (70°F), shaking periodically until crystals are dissolved. Do not contaminate water, food or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 CONTROL PARAMETERS:

OCCUPATIONAL EXPOSURE LIMITS

U.S. Workplace Exposure Level (AIHA) WEELs

Components	Type	Value
Tetrahydrofurfuryl alcohol	TWA	0.5 mg/m ³

U.S. Workplace Exposure Level (OSHA) PELs

Components	Type	Value
No data available	TLV	

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Specimen
No data available		

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8.2 EXPOSURE CONTROLS:

Engineering Measures

Provide adequate general and local exhaust ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors and spray mists. Provide eyewash station and safety shower.

Individual Protection Measures:

Eye / Face Protection: Goggles or shielded safety glasses are recommended.

Skin Protection: Long-sleeved shirt and long pants. Chemical-resistant gloves. Shoes plus socks.

Respiratory Protection: Not normally required. In case of inadequate ventilation or risk of inhalation of mists or vapors, use suitable respiratory equipment such as MSHA/NIOSH TC-84A with NIOSH equipped N, R, or P class filter media. Wear respiratory protection during operations where spraying or misting occurs. If respirators are used, a program should be in place to assure compliance with 29 CFR 1910.134, the OSHA Respiratory Protection standard. Wear air supplied respiratory protection if exposure concentrations are unknown.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 APPEARANCE :	Liquid
ODOR:	No data available.
ODOR THRESHOLD:	No data available.
COLOR:	Clear.
pH:	3.49 (1% solution)
MELTING POINT / FREEZING POINT:	No data available
BOILING POINT:	No data available
FLASH POINT:	No data available.
FLAMMABILITY (solid, gas):	No data available.
UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:	No data available.
VAPOR PRESSURE:	No data available.
SOLUBILITY:	Dispersible.
PARTITION CO-EFFICIENT, n-OCTANOL / WATER:	No data available.
AUTO-IGNITION TEMPERATURE:	No data available.
DECOMPOSITION TEMPERATURE:	No data available.
VISCOSITY:	44.114 cST @ 20°C.
SPECIFIC GRAVITY (Water = 1):	1.075 g/ml
DENSITY:	8.98 lbs./gal / 1.08 kg/L

Note: These physical data are typical values based on material tested but may vary from sample to sample.
Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. STABILITY AND REACTIVITY

10.1 REACTIVITY

Stable

10.2 CHEMICAL STABILITY

Stable under normal temperature conditions

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No data available. Will not polymerize.

10.4 CONDITIONS TO AVOID

Temperatures below 0°F and excessive heat.

10.5 INCOMPATIBLE MATERIALS

Strong oxidizing agents: bases and acids.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Oxides of carbon and hydrogen may be produced in a fire situation.

11 TOXICOLOGICAL INFORMATION

11.3 LIKELY ROUTES OF EXPOSURE

Eye contact. Skin contact. Inhalation.

LC₅₀ (rat): > 2.75 mg/L (4 HR)

LD₅₀ Oral (rat): > 5,050 mg/kg

LD₅₀ Dermal (rat): > 2,000 mg/kg

Acute Toxicity Estimates: No data available

Skin Irritation (rabbit): Not an irritant.

Eye Irritation (rabbit): Causes moderate eye irritation.

Specific Target Organ Toxicity: May cause effects to liver, kidney, brain, eyes, respiratory system, and central nervous system..

Aspiration: May pose and aspiration pneumonia hazard.

Skin Sensitization (guinea pig): Not a sensitizer

Carcinogenicity: ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen); IARC-3 (Unclassifiable as to Carcinogenicity in Humans).

Germ Cell Mutagenicity: No data available

Interactive Effects: None known.

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12 ECOLOGICAL INFORMATION**12.3 ECOTOXICITY**

The product is toxic to fish and aquatic invertebrates. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. Information below is based on the technical ingredient Malathion.

Ecotoxicological Data

	Species	Test Results
Trinexapac-ethyl	Oncorhynchus mykiss	65.7 ppm – 96-hour LC ₅₀
	Daphnia magna	> 142.5 ppm – 96-hour EC ₅₀
	Honey bee (contact)	47 µg/bee – LD ₅₀

Drift or runoff may adversely affect non-target plants.

Do not apply directly to water.

Do not contaminate water when disposing of equipment wash water.

Do not apply when weather conditions favor drift from target area.

12.2 PERSISTENCE AND DEGRADABILITY

Biodegradability: No data available.

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: Bioconcentration potential is low.

12.4 MOBILITY IN SOIL

Trinexapac-ethyl is moderately mobile in soil. Primary pathway for dissipation in soils is by microbial degradation.

12.5 OTHER ADVERSE EFFECTS

Assessment: No data available.

13 DISPOSAL CONSIDERATIONS**13.1 WASTE TREATMENT METHODS**

Wastes may be disposed of on site or at an approved waste disposal facility. Triple rinse (or equivalent), adding rinse water to spray tank. Offer container for recycling or dispose of in a sanitary landfill or by other procedures approved by appropriate authorities. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at <http://www.acrecycle.org>. Do not contaminate water, food or feed by storage or disposal.

14 TRANSPORT INFORMATION**14.3 LAND TRANSPORT**

DOT Shipping Description: NOT REGULATED BY DOT

U.S. Surface Freight Classification: INHIBITORS, MODIFIERS OR REGULATORS, PLANT GROWTH (NMFC 101685, CLASS: 65)

15 REGULATORY INFORMATION**15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS****NFPA & HMIS Hazard Ratings:****NFPA**

1 Health
1 Flammability
0 Instability

0 Least
1 Slight
2 Moderate
3 High
4 Severe

HMIS

1 Health
1 Flammability
0 Reactivity
H PPE

SARA Hazard Notification/Reporting**SARA Title III Hazard Category:**

Immediate Y
Delayed N

Fire N
Reactive N

Sudden Release of Pressure N

Reportable Quantity (RQ) under U.S. CERCLA: Not listed.

SARA, Title III, Section 313: Not listed

RCRA Waste Code: Not listed.

CA Proposition 65: Not listed

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This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

WARNING

Causes substantial but temporary eye injury.

Harmful if absorbed through skin.

Harmful if swallowed.

Do not get in eyes or on clothing.

Avoid contact with skin.

Wear protective eyewear (goggles, face shield, or safety glasses).

Wash thoroughly with soap and water after handling and before eating drinking, chewing gum, or using tobacco.

Remove and wash contaminated clothing before reuse.

Wear long-sleeved shirt and long pants, socks, shoes, and chemical resistant.

16 OTHER INFORMATION

SDS STATUS: Format revised.

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental Health and Safety

EPA REG. NO.: 34704-1005

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