

**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:** ACIDIFIER  
**TRADE NAME:** LEAF LIFE SLINGSHOT™
- 1.2 **RECOMMENDED USE:** BUFFERING AGENT FOR AGRICULTURAL USE
- 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 2A	H319
Skin Corrosion/Irritation	Category 3	H316
Specific Target Organ Toxicity – Single Exposure	Category 3	H335

**2.2 Label elements**



Signal word: WARNING  
 Hazard Statement: H319 – Causes serious eye irritation.  
 H316 – Causes mild skin irritation.  
 H335 – May cause respiratory irritation.

Precautionary Statement: (Prevention): P264 – Wash thoroughly after handling.  
 P280 – Wear protective gloves/protective clothing/eye protection/face protection.  
 P261 – Avoid breathing dust/fume/gas/mist/vapors/spray.  
 P271 – Use only outdoors or in a well-ventilated area.

Precautionary Statement: (Response): P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337+P313 – If eye irritation persists: Get medical advice/attention.  
 P304+P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P312 – Call a poison center or doctor/physician if you feel unwell.

Precautionary Statement: (Storage): P403+P233 – Store in a well-ventilated place. Keep container tightly closed.  
 P405 – Store locked up.

Precautionary Statement: (Disposal): P501 – Dispose of contents/container in accordance with local, state and federal requirements.

**2.3 Other hazards**  
None known.



# SAFETY DATA SHEET

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### 3. COMPOSITION, INFORMATION ON INGREDIENTS

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#### 3.1 Substances

#### 3.2 Mixtures

Classification according to 29 CFR 1910.1200

Chemical Name:	CAS No.	Concentration [%]
Citric Acid	77-92-9	50.00
Water	7732-18-5	50.00

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### 4. FIRST AID MEASURES

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#### 4.1 Description of First Aid Measures

General Advice: Avoid contact with eyes, skin or clothing.

- 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 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 inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferable by mouth-to-mouth, if possible. 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 a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

#### 4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: Causes serious eye irritation. May cause mild skin irritation. May cause respiratory irritation.

#### 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:** Treat symptomatically.

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### 5. FIRE FIGHTING MEASURES

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#### 5.1 EXTINGUISHING MEDIA:

Suitable Extinguishing Media: Dry chemical, carbon dioxide (CO<sub>2</sub>), alcohol-resistant foam, dry sand, limestone powder.

#### 5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Specific Hazards During Firefighting: None known.

#### 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.



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## 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: Prevent further leakage or spillage if safe to do so. Do not contaminate water. Do not allow to enter drains, sewers, or watercourses.

### 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: Avoid inhalation of mists, vapors / spray and contact with eyes, skin and clothing. Do not breathe mists or vapor. Wear personal protective equipment. Do not use in areas without adequate ventilation. Avoid prolonged exposure. Wash thoroughly after handling. Do not empty into drains. Handle and open container with care. Use care in handling/storage. Wash before eating, drinking and/or smoking.

### 7.2 CONDITIONS FOR SAFE STORAGE:

Requirements for Storage Areas and Containers: Store in cool, dry place. Store in original container. Keep tightly closed. Do not reuse empty container. Avoid storage below 32 °F. If product freezes, warm and agitate (recirculate) prior to use. 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 (ACGIH) Guides

Components	Type	Value
No listings		

#### Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Specimen
No listings		

### 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 face-shield should be worn.  
Skin Protection: Long-sleeved shirt and long pants. Chemical-resistant gloves. Socks.  
Respiratory Protection: Not normally required in properly ventilated areas. In case of inadequate ventilation or risk of inhalation of mists or vapors, use suitable respiratory equipment such as MSHA/NIOSH TC-21C or NIOSH approved respirator with N, R, P or HE filter. 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.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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**9.1 APPEARANCE :** Liquid  
**ODOR:** Odorless.  
**ODOR THRESHOLD:** No data available.  
**COLOR:** Colorless.  
**pH:** No data available.  
**MELTING POINT / FREEZING POINT:** Not applicable.  
**BOILING POINT:** Not applicable.  
**FLASH POINT:** > 120 °F / CC  
**FLAMMABILITY (solid, gas):** No data available.  
**UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:** No data available.  
**VAPOR PRESSURE:** No data available.  
**SOLUBILITY:** Soluble.  
**PARTITION CO-EFFICIENT, n-OCTANOL / WATER:** No data available.  
**AUTO-IGNITION TEMPERATURE:** No data available.  
**DECOMPOSITION TEMPERATURE:** No data available.  
**VISCOSITY, kinematic:** No data available.  
**SPECIFIC GRAVITY (Water = 1):** 1.24 g/ml  
**DENSITY:** 10.35 lbs/gal | 1.24 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.

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## 10. STABILITY AND REACTIVITY

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### 10.1 REACTIVITY

Stable

### 10.2 CHEMICAL STABILITY

Stable under normal temperature conditions

### 10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No reactions known under normal use conditions. Will not polymerize.

### 10.4 CONDITIONS TO AVOID

No data available.

### 10.5 INCOMPATIBLE MATERIALS

Oxidizing agents, reducing agents, metals, alkalis. Corrosive in the presence of aluminum, zinc, and copper.

### 10.6 HAZARDOUS DECOMPOSITION PRODUCTS

None known.

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## 11. TOXICOLOGICAL INFORMATION

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### 11.1 LIKELY ROUTES OF EXPOSURE

Eye contact, skin contact.

**LC<sub>50</sub> (rat):** No data available.

**LD<sub>50</sub> Oral (rat):** 3,000 mg/kg (Citric Acid).

**LD<sub>50</sub> Dermal (rabbit):** No data available.

**Acute Toxicity Estimates:** No data available.

**Skin Irritation (rabbit):** May cause mild skin irritation.

**Eye Irritation (rabbit):** Serious eye irritation.

**Specific Target Organ Toxicity:** Single exposure: May cause respiratory irritation.

**Aspiration:** No data available

**Skin Sensitization (guinea pig):** Not a sensitizer

**Carcinogenicity:** No data available

**Germ Cell Mutagenicity:** No data available

**Interactive Effects:** None known



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## 12. ECOLOGICAL INFORMATION

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### 12.1 ECOTOXICITY

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. This product is not intended for use in aquatic settings.

#### Ecotoxicological Data

	Species	Test Results
Product		
48-hour LC <sub>50</sub>	Leucisus idus melanotus	440 mg/l
72-hour EC <sub>50</sub>	Daphnia magna	170 mg/l
96-hour LC <sub>50</sub>	Bluegill sunfish	1516 mg/l

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: Readily biodegradable, as defined by OECD, substance that degrades > 60-70% within a 10-day window over 28 days.

### 12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: No data available.

### 12.4 MOBILITY IN SOIL

No data available.

### 12.5 OTHER ADVERSE EFFECTS

Assessment: No data available.

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## 13. DISPOSAL CONSIDERATIONS

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### 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. Do not contaminate water, food or feed by storage or disposal.

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## 14. TRANSPORT INFORMATION

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### 14.1 LAND TRANSPORT

DOT Shipping Description: NOT REGULATED

U.S. Surface Freight Classification: ADHESIVES, ADJUVANTS, SPREADERS OR STICKERS (NMFC 4610; CLASS 60)



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**15. REGULATORY INFORMATION**

**15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS**

<b>NFPA &amp; HMIS Hazard Ratings:</b>	NFPA		HMIS
	1 Health	0 Least	1 Health
	0 Flammability	1 Slight	0 Flammability
	0 Instability	2 Moderate	0 Reactivity
		3 High	X PPE
		4 Severe	

**SARA Hazard Notification/Reporting**

**SARA Title III Hazard Category:** Immediate Y      Fire N      Sudden Release of Pressure N  
 Delayed N      Reactive N

**Reportable Quantity (RQ) under U.S. CERCLA:** Not listed  
**SARA, Title III, Section 313:** Material does not contain any chemical components with known CAS numbers that exceed threshold (De Minimis) reporting levels.  
**RCRA Waste Code:** Not listed.  
**CA Proposition 65:** Not applicable.

**16. OTHER INFORMATION**

**SDS STATUS:** New.

**PREPARED BY:** Registrations and Regulatory Affairs

**REVIEWED BY:** Environmental Health and Safety

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