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The Best Products.
The Best Service.*

MATERIAL SAFETY DATA SHEET NO. 713

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name	LEAF LIFE® Organic Water Conditioner
Chemical Name	2-hydroxy-1,2,3-propanetricarboxylic acid
Common Name, Synonyms	Citric acid
Manufactured By	Western Farm Service, Inc.
Emergency Telephone Number	Information (559) 436-2800 8am-5pm PST M-F CHEMTREC (800) 424-9300 24 hours every day

2. COMPOSITION / INFORMATION ON INGREDIENTS

Nutrients derived from the following **INGREDIENTS**

<u>Chemical Name</u>	<u>CAS #</u>
Citric Acid	77-92-9
Water	7732-18-5

3. HAZARDS IDENTIFICATION

Emergency Overview	Clear liquid with slight citrus odor.
OSHA Hazard Category	IRRITANT
Primary Routes of Entry	Eye contact is the most likely exposure. Ingestion is possible. Inhalation of sprays made from fertilizer solutions may cause irritation to throat and nasal passages.
Target Organs	Eyes
Potential Health Effects	
Eyes	May cause sever irritation to eyes.
Skin	Causes irritation to skin. Symptoms include redness and itching.
Inhalation	Inhalation of spray may cause irritation to nose, throat, mucous membranes; coughing, or difficulty in breathing.
Ingestion	Ingestion of this solution may cause nausea, abdominal cramps, and diarrhea.

3. HAZARDS IDENTIFICATION (con't)

Symptoms of Overexposure

Acute	Refer to potential health effects above.
Chronic	Chronic or heavy acute ingestion may cause tooth enamel erosion.

4. FIRST AID MEASURES

Eyes	Flush gently and thoroughly for 15 minutes with large amounts of clean water, occasionally lifting upper and lower lids. Seek medical attention.
Skin	Wash skin thoroughly with soap and water. Remove contaminated clothing and shoes. Wash or clean before wearing again.
Inhalation	Remove person to fresh air immediately. If breathing has stopped, begin artificial respiration or CPR (cardiopulmonary resuscitation) and seek medical attention as appropriate.
Ingestion	Seek medical attention immediately. Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

FIRE AND EXPLOSION DATA

Flashpoint	Not flammable
Flammable Limits	Not flammable
Auto-ignition Temperature	Not applicable
Extinguishing Media	Any extinguishing media suitable for surrounding fire

SPECIAL FIRE FIGHTING PROCEDURE

This solution is not flammable or explosive. However, if it is exposed to very high temperatures, toxic oxides may be generated.

6. ACCIDENTAL RELEASE MEASURES

LEAF LIFE Organic Water Conditioner is a crop chemical. However, large spills could possibly damage vegetation or cause illness in animals. Contamination of waterways could possibly cause fish kills. Dike spill area to prevent spread and runoff into drains, storm sewers, and ditches that lead to waterways. Keep unauthorized personnel away from spills.

Pump spilled material into suitable containers for removal. Flush area with water, contain and remove cleanup liquid. Small amounts of spilled liquid may be absorbed using appropriate absorbent material. As conditions warrant, notify proper authorities, downstream sewer and water treatment operations, and other downstream users about potentially contaminated water.

7. HANDLING AND STORAGE

Handling	Avoid breathing mist. Promptly clean up spills.
Storage	Keep containers closed. Recommended storage temperature is 50°F to 120°F

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:	No exposure limits have been set for this solution.
Ventilation:	None required under normal conditions.
Eyes:	Chemical protective goggles should be used where splashing may occur and when transferring this solution.
Skin:	Wear impervious gloves when handling this material. Wear impervious protecting clothing as appropriate to prevent skin contact.
Respiratory Protection:	Use a NIOSH approved mist respirator where mist occurs.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point	212°F
Freezing Point	32°F
Vapor Pressure	Unknown
Vapor Density	Unknown
Percent Volatile (by volume)	Not applicable
Evaporation Rate	Not applicable
Solubility in Water	100%
pH	2.5 to 3.0
Salt-out Temperature	33°F
Specific Gravity (H ₂ O =1)	1.16
Appearance and Odor	Clear liquid. Slight citrus odor.

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions of use and storage.
Hazardous Polymerization	Will not occur.
Incompatibility	Incompatible with metal nitrates, oxidizing agents, alkali carbonates, potassium tartrate. Will corrode copper, zinc, aluminum and their alloys.
Hazardous Decomposition	Carbon dioxide and carbon monoxide may be formed when heated to decomposition.
Conditions to Avoid	Prevent contamination with incompatible materials.

11. TOXICOLOGICAL INFORMATION

Published health information about ingredients includes the following:

Citric Acid	LDLo =5040 mg/kg (oral, mouse) toxic effects not reported other than lethal dose value.
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POTENTIAL CARCINOGEN DATA (IARC, NTP, OSHA) None found for this suspension

FOR HEALTH EMERGENCIES CALL YOUR LOCAL POISON CENTER

12. ECOLOGICAL INFORMATION

No data found

LEAF LIFE Organic Water Conditioner is a crop chemical. However, large spills could possibly damage vegetation. Contamination of waterways could possibly cause fish kills. Prevent spread and runoff into drains, storm sewers, and ditches that lead to waterways.

13. DISPOSAL CONSIDERATIONS

If uncontaminated, recover and reuse as product. If contaminated with other materials, the nature and extent of contamination may require use of specialized disposal methods. Consult local, county, state, or federal regulatory agencies for acceptable disposal procedures and disposal locations.

14. TRANSPORTATION INFORMATION

DOT Proper Shipping Name	Not applicable
DOT Hazard Class	This solution is not regulated by DOT
Packaging Group	Not applicable
Label/Placard Required	None
UN/NA No.	Not listed

FOR TRANSPORTATION EMERGENCIES CALL CHEMTREC 1-800-424-9300

15. REGULATORY INFORMATION

CERCLA No CERCLA Reportable Quantity has been established for this material.

SARA Title III (EPCRA) Not a Toxic Chemical under Section 313.

Information regarding the contents and levels of metals in this product is available on the internet at:
<http://www.aapfco.org/metals.htm>.

EPA NATIONAL RESPONSE CENTER 1-800-424-8802

16. OTHER INFORMATION

DATE PREPARED July 25, 2007

NAME OF RESPONSIBLE PARTY Western Farm Service, Inc.
P. O. Box 1168
Fresno, California 93715-1168

(559) 436-2800

NOTICE

All information appearing in this document is based on data provided by third party sources and is compiled to comply with the Federal Hazard Communication Standard. The information is believed to be accurate as of the preparation date but is not warranted as being the final authority in the use of this product. This information does not purport to be legal or medical advice.

Western Farm Service, Inc. makes no warranty of merchantability, fitness for any purpose or otherwise, expressed or implied, concerning this product or its uses which extend beyond the use of the product under normal conditions in accord with the statements made on the label.

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