

SAFETY DATA SHEET

SDS NUMBER: 000883-15-LPI

SDS REVISIONS: FORMAT

DATE OF ISSUE: 08/28/15

MIRAGE PLUS

SUPERSEDES: 09/17/09

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: MIRAGE PLUS HERBICIDE**1.2 RECOMMENDED USE:** FOR NON-SELECTIVE BROAD SPECTRUM WEED CONTROL IN MANY CROPS**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
Acute Toxicity - Inhalation	Category 4	H332
STOT – RE	Category 2	H373

2.2 Label elements

**Signal word:** WARNING**Hazard Statement:**
H319 – Causes serious eye irritation.
H332 – Harmful if inhaled.
H373 – May cause damage to kidney, liver or bladder through prolonged or repeated exposure.**Precautionary Statement:**P260 – Do not breathe dust/fume/mist/vapors/spray.
P264 - Wash hands thoroughly after handling.**(Prevention):**P270 – Do not eat, drink or smoke when using this product.
P271 – Use only outdoors or in a well-ventilated area.
P280 – Wear protective gloves/eye protection/face protection.
P102 – Keep out of reach of children.**Precautionary Statement:**P305+P351+P338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P304+P340: IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.**(Response):**P337 – If eye irritation persists: Get medical advice/attention.
P307 – If exposed: Call a POISON CENTER or doctor/physician.
P391 – Collect spillage.**Precautionary Statement:****(Storage):**P405 – Store locked up.
P501 – Dispose of contents/container in accordance with local, regional, national regulations.

2.3 Other hazards

None known

Potential Health effects

Routes of exposure

Eye contact. Inhalation.

Eyes

Causes serious eye irritation.

Skin

Not a skin irritant.

Inhalation

Harmful if inhaled.

Ingestion

Harmful if swallowed.

Target organs

Eyes. Ingestion.

Signs and symptoms

Causes serious 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.

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3. COMPOSITION, INFORMATION ON INGREDIENTS

3.1 Substances**3.2 Mixtures****Classification according to 29 CFR 1910.1200**

Chemical Name:	CAS No.	Classification	Concentration [%]
Isopropylamine salt of glyphosate	38641-94-0	Eye Dam/Irrit. 2A; H319 Acute tox/Inh. 4; H332	41
*Other ingredients	n/a	STOT-RE; 2; H373	59

*Ingredients not specifically listed are non-hazardous and 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 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 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 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 serious eye irritation.
Oral: Harmful if swallowed.

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: Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

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: Oxides of nitrogen, oxides of carbon, oxides of phosphorus and other unknown materials may be formed in a fire situation.

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: Do not apply directly to water, or 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 washwaters or rinsate.

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: Keep container tightly closed to prevent spills and contamination. 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) TLVs

Components	Type	Value
No data available		

U.S. Workplace Exposure Level (OSHA) PELs

Components	Type	Value
No data available		

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 shielded safety glasses are recommended.
Skin Protection: Long-sleeved shirt and long pants. Shoes plus socks.
Respiratory Protection: Not normally required, if mists/vapors exceed acceptable levels, wear a NIOSH approved pesticide respirator for organic vapor and dust/mist. 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

9.1 APPEARANCE : Liquid
ODOR: Slight.
ODOR THRESHOLD: No data available.
COLOR: Amber to brown.
pH: 4.7
MELTING POINT / FREEZING POINT: No data available
BOILING POINT: No data available
FLASH POINT: Does not flash.
FLAMMABILITY (solid, gas): No data available.
UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: No data available.
VAPOR PRESSURE: No significant volatility; aqueous solution.
SOLUBILITY: Soluble.
PARTITION CO-EFFICIENT, n-OCTANOL / WATER: log POW: <-3.2 @ 25°C (glyphosate).
AUTO-IGNITION TEMPERATURE: 443°C.
DECOMPOSITION TEMPERATURE: No data available.
VISCOSITY: (kinematic): No data available
SPECIFIC GRAVITY (Water = 1): 1.1655 g/ml
BULK DENSITY: 9.73 lbs./gal / 1.17 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

Reacts with galvanized steel or unlined mild steel. Will not polymerize.

10.4 CONDITIONS TO AVOID

Use of galvanized steel or unlined mild steel.

10.5 INCOMPATIBLE MATERIALS

Galvanized steel. Unlined mild steel.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Reactions from use of galvanized or unlined mild steel will produce hydrogen, a highly flammable gas that could explode..

11 TOXICOLOGICAL INFORMATION

11.3 LIKELY ROUTES OF EXPOSURE

Eye contact. Harmful if inhaled.

LC₅₀ (rat): 1.6 mg/L (4 HR, aerosol)

LD₅₀ Oral (rat): > 5,000 mg/kg

LD₅₀ Dermal (rat): > 5,000 mg/kg

Acute Toxicity Estimates: No data available

Skin Irritation (rabbit): not an irritant.

Eye Irritation (rabbit): Causes serious eye irritation.

Specific Target Organ Toxicity: Liver, kidney, bladder.

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**12.3 ECOTOXICITY**

The product may be 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 2,4-D acid.

Ecotoxicological Data

	Species	Test Results
Glyphosate	Rainbow trout	42 mg/L – 96-hour LC ₅₀
	Bluegill	24 mg/L – 96-hour LC ₅₀
	Daphnia magna	160 mg/L – 48-hour EC 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 (BCF < 1).

12.4 MOBILITY IN SOIL

Half life: 2 – 174 days. Koc: 884 - 60,000 L/kg.

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.acrcycle.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: COMPOUND, TREE OR WEED KILLING, NOI (NMFC 50320, SUB 2: CLASS 60)

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

3 Health
1 Flammability
1 Instability

0 Least
1 Slight
2 Moderate
3 High
4 Severe

HMIS

3 Health
1 Flammability
1 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

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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.

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 swallowed or inhaled.

Avoid breathing vapor or spray mist.

16 OTHER INFORMATION

SDS STATUS: Format revised.

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental Health and Safety

EPA REG. NO.: 34704-883

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