

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

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

FORMULATED FOR:

Platte Chemical Company
P.O. Box 667 • Greeley, CO 80632-0667

24-Hour Emergency Phone: 1-800-424-9300
Medical Emergencies: 1-800-301-7976

PRODUCT NAME: MIRAGE® HERBICIDE
CHEMICAL NAME: Glyphosate: N- (phosphonomethyl) glycine, in the form of its Isopropylamine salt
CHEMICAL FAMILY: Herbicide
EPA REG. NO.: 524-445-34704

MSDS Number: 524445-03 **MSDS Revisions:** Sections 1, 2, 4, and 16 **Date Of Issue:** 07/30/03 **Supersedes:** 01/29/00

2. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Isopropylamine salt of Glyphosate	41.00	38641-94-0	none established
Inert Ingredients, including Ethoxylated Tallowamines*	59.00	61791-26-2	
*Hazardous chemical under the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200)			

3. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – WARNING! AVISO! Si usted entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.) CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY. HARMFUL IF SWALLOWED OR INHALED. Do not get in eyes or on clothing. Avoid breathing vapor or spray mist.

This product is clear, viscous amber colored solution with little odor. Primary routes of entry are Inhalation, eye contact and skin contact.

4. FIRST AID MEASURES

IF IN EYES: Immediately hold eyelids open and flush with plenty of water for at least 15 minutes. Get medical attention.
IF INHALED: Remove individual to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.
IF SWALLOWED: This product will cause gastrointestinal tract irritation. Immediately dilute by swallowing water or milk. Get medical attention. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONCIOUS PERSON.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-301-7976.

5. FIRE FIGHTING MEASURES

FLASH POINT (° F/Test Method): None
FLAMMABLE LIMITS (LEL & UEL): Not established
EXTINGUISHING MEDIA: Use medium appropriate to surrounding fire. Dry chemical, carbon dioxide, foam, water spray or fog.
HAZARDOUS COMBUSTION PRODUCTS: Toxic fumes may be emitted in a fire situation.
SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus and full protective clothing. Fight fire from upwind.
UNUSUAL FIRE AND EXPLOSION HAZARDS: If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Keep containers cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

In case of leak or spill, contain material and dispose as waste. Do not contaminate any body of water. Sweep up material. Place it and damaged unusable containers in a landfill approved for pesticides. Check local, state and federal regulations for proper disposal.

CAUTION: Prevent spilled material from flowing onto adjacent land, or into municipal sewers and open bodies of water.

7. HANDLING AND STORAGE

HANDLING: Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or spray mist. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. DO NOT MIX, STORE, OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS.
STORAGE: Store in original container only. Keep tightly closed. Keep out of reach of children. Do not contaminate water supplies by handling and storage of product.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Not normally required. Use local exhaust if working in confined areas.
RESPIRATORY PROTECTION: Not normally required, if mists/vapors exceed acceptable levels, wear a NIOSH approved pesticide respirator for organic vapor and dust/mist.
EYE PROTECTION: Chemical goggles or shielded safety glasses.
SKIN PROTECTION: Wear protective clothing: long-sleeved shirts and pants, hat, shoes plus socks. Wear rubber or chemical-resistant gloves.

MATERIAL SAFETY DATA SHEET

MIRAGE® HERBICIDE

For product

OSHA PEL 8 hr TWA
none established

ACGIH TLV-TWA
none established

EPA HANDLER REQUIREMENTS

Worker Protection Standard – 40 CFR 170

Personal Protective Equipment: Applicators and other handlers must wear: long sleeved shirt and long pants, shoes plus socks, and protective eyewear. Discard clothing and other absorbent material that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Clear, viscous amber-colored solution with little odor

SPECIFIC GRAVITY (Water= 1): 1.17 g/ml

VAPOR PRESSURE: Not established

PERCENT VOLATILE (by volume): Not established

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.

BULK DENSITY: 9.76 lbs/gal.

BOILING POINT: Not established

EVAPORATION RATE: Not established

SOLUBILITY: Soluble

pH: 4.7 (1% solution))

10. STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: Use of galvanized or unlined steel.

INCOMPATIBILITY: This product and its spray solutions will react with galvanized or unlined steel to produce hydrogen gas that may form a highly combustible gas mixture, which could flash or explode if ignited. Acids and bases.

HAZARDOUS DECOMPOSITION PRODUCTS: Will emit toxic fumes as it burns.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (rat): >5000 mg/kg

Eye Irritation (rabbit): Causes substantial but temporary eye injury

Inhalation LC₅₀: 2.6 mg/L (4 Hr. Aerosol)

Carcinogenic Potential: None listed in OSHA, NTP, IARC or ACGIH

Acute Dermal LD₅₀ (rabbit): >5000 mg/kg

Skin Irritation (rabbit): Essentially non-irritating

Ingestion: May cause stomach distress, nausea or vomiting.

Skin sensitization: Not a sensitizer

12. ECOLOGICAL INFORMATION

This product is slightly to moderately toxic in aquatic studies. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. This product has been shown to be practically non-toxic to avian species following sub-acute dietary exposure. Do not contaminate water when disposing of equipment wash water. Do not apply when weather conditions favor drift from target area.

Rainbow Trout 96-hr LC50 22 mg/l (static)

Fathead minnow 96-hr LC50 9.4 mg/L

Channel catfish 96-hr LC50 16 mg/L

Rainbow Trout 96-hr LC50 8.2 mg/l (dynamic)

Chinook salmon 96-hr LC50 20 mg/L

Daphnia Magna 48-hr LC50 37 mg/L (aeration)

Daphnia Magna 48-hr LC50 24 mg/L (without aeration)

Coho Salmon 96-hr LC50 22mg/L

Bluegill Sunfish 96-hr LC50 14 mg/L (dynamic)

Algae S. Capricornutum 72-hr EC50 2.1 mg/L

Bluegill Sunfish 96-hr LC50 14 mg/L (static)

Bobwhite Quail 8-day LC50 >6300 ppm

13. DISPOSAL CONSIDERATIONS

Do not reuse product containers. Plastic Jugs: Triple rinse (or equivalent), then offer for recycling at an ACRC site or by reconditioning, or puncture and dispose of in a sanitary landfill or by other procedures approved by local, state and federal regulations. Metal containers: Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by other procedures approved by local, state and federal regulations.

14. TRANSPORT INFORMATION

DOT Shipping Description: NOT REGULATED USDOT.

U.S. Surface Freight Classification: COMPOUND, TREE OR WEED KILLING, NOI (NMFC 50320, SUB 2: CLASS 60)

Consult appropriate ICAO/IATA and IMDG regulations for shipment requirements in the Air and Maritime shipping modes.

15. REGULATORY INFORMATION

NFPA & HMIS Hazard Ratings:

NFPA

HMIS

2 Health

0 Least

0 Flammability

1 Slight

0 Instability

2 Moderate

3 High

4 Severe

2 Health

0 Flammability

0 Reactivity

H PPE

MATERIAL SAFETY DATA SHEET

MIRAGE® HERBICIDE

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: Not listed

RCRA Waste Code: Not listed

CA Proposition 65: Not listed

16. OTHER

MSDS STATUS: Sections 1, 2, 4, and 16

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental/ Regulatory Services

®Mirage is a registered trademark of Monsanto Company used under license

ADDITIONAL TELEPHONE NUMBER FOR EMERGENCIES INVOLVING THIS PRODUCT: CALL COLLECT, DAY OR NIGHT, (314) 694-4000

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Platte Chemical Company makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving it will make their own determination as to its suitability for their purposes prior to use. **In no event will Platte Chemical Company be responsible for any damages of any nature including, without limitation, direct, special or consequential, resulting from the use, reliance upon, or the accuracy, completeness or furnishing of such Information.** NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.