

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY ADDRESS:

RedEagle International LLC
5143 S. Lakeland Drive - Suite 4
Lakeland, FL 33813

EMERGENCY TELEPHONE NUMBERS:

(800) 424-9300 (CHEMTREC, transportation and spills)
(800) 222-1222 American Association of Poison Control Centers

PRODUCT NAME:

GLUFOSINATE 280SL

CHEMICAL NAME:

Glufosinate-ammonium

PRODUCT USE:

Herbicide

PRODUCT CODE:

EPA Reg. No. 85678-42

SECTION 2 - HAZARDS IDENTIFICATION SUMMARY

(As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200)

Blue clear liquid.

HEALTH HAZARDS: WARNING Harmful if absorbed through skin, swallowed or inhaled. Substantial but temporary eye irritant. Prolonged and repeated contact may cause allergic reactions in some individuals or organ damage.

PHYSICAL HAZARDS: None known.

ENVIRONMENTAL HAZARDS: Moderately toxic to fish and aquatic plants.



SECTION 3 – COMPOSITION, INFORMATION OF INGREDIENTS

COMPONENT	PERCENTAGE	CAS No.
Glufosinate-ammonium	24.5	77182-82-2
Propylene glycol monomethyl ether	10.0	107-98-2

SECTION 4 - FIRST AID MEASURES

First Aid responders should use protective equipment in Section 8 if there is a potential for exposure to product.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present and easy to do, 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. Do not induce vomiting unless told to do so by poison control center or doctor. Do not give any liquid to a person. 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.

NOTE TO PHYSICIAN: Ingestion of this product should be treated using endotracheal intubation and gastric lavage as soon as possible followed by charcoal and sodium sulfate administration.

Have a product container or label with you when calling a poison control center or doctor, or going for treatment.

SECTION 5 - FIRE FIGHTING MEASURES

NFPA (National Fire Protection Association) HAZARD RATINGS

HEALTH	FLAMMABILITY	REACTIVITY
2	1	0

4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal

FLASHPOINT: n/a

EXTINGUISHING MEDIA: Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.

FIRE AND EXPLOSION HAZARD: Can release irritating and toxic gases.

FIRE FIGHTING INSTRUCTIONS: Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Dike and collect water used to fight fire to prevent environmental damage due to run off. Minimize use of water to prevent environmental contamination.

FIRE FIGHTING EQUIPMENT: Full firefighting turn-out gear (Bunker gear) including self-contained breathing apparatus with full face piece.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILLS OR LEAKS: Stop the source of the spill if safe to do so. Contain the spill to prevent further contamination of soil, surface water, or ground water. Clean up spills immediately. Observe precautions in Section 8 of this document. Keep unnecessary and unprotected personnel from entering.

SMALL SPILL: Absorb small spills with sand, vermiculite, or other absorbent inert ingredients. Place material in a container for proper disposal.

LARGE SPILL: Dike spill using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse or disposal. Allow absorbed material to solidify and scrape up for disposal. After removal, clean contaminated area thoroughly with water. Pick up wash liquid with additional absorbent for disposal. Minimize use of water to prevent environmental contamination.

CAUTION: Minimize use of water to prevent runoff into municipal sewers or other open bodies of water and minimize environmental contamination. Be sure to isolate any contaminated water. Contact your State Pesticide or Environmental Control Agency, or nearest EPA Regional Office for guidance on disposal.

SECTION 7 - HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN!

HANDLING: Use only in a well-ventilated area. Wear proper safety equipment specified in Section 8 when mixing, loading or otherwise handling concentrate. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing if pesticide gets inside clothing. Then wash thoroughly and put on clean clothing. Remove PPE after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

STORAGE: Keep pesticide in original container. Keep container tightly closed when not in use. Store in a locked storage area. Avoid cross contamination with other pesticides or fertilizers during handling and storage. Store in a cool, dry place. Keep away from direct sunlight. Do not contaminate water, feed, or food by storage and disposal.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION
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EXPOSURE LIMITS: (8 hour TWA, ppm):

COMPONENT	OSHA PEL	ACIGH TLV
Glufosinate-ammonium	Not listed	Not listed
Propylene glycol monomethyl ether	(vacated)TWA 100ppm(vacated)TWA360mg/m3 (vacated)STEL:150 ppm(vacated)STEL:540MG/M3	STEL:100 ppm TWA: 50 ppm

ENGINEERING CONTROLS: Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

PERSONAL PROTECTIVE EQUIPMENT:

EYE PROTECTION: Protective eyewear

SKIN PROTECTION: Long-sleeved shirt and long pants or coveralls, chemical resistant shoes and socks, chemical-resistant gloves such as barrier laminate or viton \geq 14 mils.

RESPIRATOR: Normally not required. If handling in an enclosed environment where vapors or mists may exceed acceptable levels or if mixing/loading for a prolonged time frame, wear NIOSH approved air-purifying respirator approved for pesticides.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS: 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 outside of gloves before removing. As soon as possible wash thoroughly and change into clean clothing.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Blue clear liquid
Odor:	Slight ammonia odor
pH:	6.0 – 7.0
Melting Point:	Not applicable
Boiling Point:	Not applicable
Flash Point:	142 F/61.1 C
Evaporation Rate:	No data
Flammability:	No data
Flammability Limits:	No data
Vapor Pressure:	$<3.1 \times 10^{-2}$ mPa (50 ⁰ C) (Glufosinate-ammonium)
Vapor Density:	Not applicable
Density:	1.10 – 1.18 g/ml
Solubility:	Emulsifies in water
Partition Coefficient:	No data
Auto-Ignition Temperature:	No data
Decomposition Temperature:	No data
Viscosity:	No data

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SECTION 10 - STABILITY AND REACTIVITY
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PRODUCT REACTIVITY:	None known
CHEMICAL STABILITY:	Stable under normal conditions.
HAZARDOUS REACTION/POLYMERIZATION:	Product will not undergo polymerization.
CONDITIONS TO AVOID:	Avoid excessive heat, direct sunlight, and below freezing temperatures.
INCOMPATIBLE MATERIALS:	Strong oxidizing materials, acids, and bases.
HAZARDOUS DECOMPOSITION PRODUCTS:	Oxides of carbon and sulfur.

SECTION 11 - TOXICOLOGICAL INFORMATION**ACUTE TOXICITY:**

Oral LD ₅₀ (rat):	> 300 mg/kg
Dermal LD ₅₀ (rat):	> 750 mg/kg
Inhalation LC ₅₀ (rat):	> 2.1 mg/l
Eye irritation (rabbit):	Severe
Skin irritation (rabbit):	Slight
Sensitization (guinea pig):	Sensitizer

CARCINOGEN STATUS:

OSHA:	Not listed
NTP:	Not listed
IARC:	Not listed

TERATOGENICITY: Birth defects and reproductive effects observed only at maternally toxic doses.

MUTAGENICITY: No evidence of mutagenic effects during in vivo or in vitro studies.

SECTION 12 - ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: 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 apply where runoff might occur. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when cleaning equipment or disposing of equipment wash waters or rinsate. Drift or runoff may damage or destroy non-target plants. Do not apply when weather conditions may cause drift or runoff.

FATE: Moderately persistent with a soil half-life of 30 – 180 days. Very soluble in water and mobile in soil with potential to contaminate ground water.

FISH TOXICITY:

96 hour LC ₅₀ , Rainbow trout:	> 25 mg/l
96 hour LC ₅₀ , Bluegill:	> 50 mg/l

AVIAN TOXICITY:

Dietary LD ₅₀ , Bobwhite quail:	> 2,000 mg/Kg
Dietary LD ₅₀ , Mallard duck:	Unknown

BEE TOXICITY: Unknown

SECTION 13 - DISPOSAL CONSIDERATIONS

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

PESTICIDE DISPOSAL: Excess pesticide spray, mixture, or rinsate resulting from the use of this product can be disposed of onsite according to label instructions or at an approved waste disposal facility. Improper disposal is a violation of Federal Law.

CONTAINER DISPOSAL: Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. Refer to the product label for additional and complete Container Handling instructions.

SECTION 14 - TRANSPORT INFORMATION**DOT SHIPPING DESCRIPTION:**

Packaging < 119 gallons per complete package:	Non-regulated
Packaging ≥ 119 gallons per complete package:	NA 1993, Combustible Liquid, n.o.s. (Propylene glycol monomethyl ether), PG III, Marine Pollutant

TRANSPORT HAZARD CLASS:	3
UN NUMBER:	NA 1993
DOT PACKING GROUP:	III
DOT EMERGENCY RESPONSE GUIDE:	171

SECTION 15 - REGULATORY INFORMATION

CERCLA REPORTABLE QUANTITY: Not listed

SARA TITLE III

311/312 HAZARD CATEGORY: Immediate health

313 TOXIC CHEMICALS: Not known

CALIFORNIA PROP 65: WARNING: Not listed.

TSCA: Exempted - solely for FIFRA regulated use.

SECTION 16 - OTHER INFORMATION

NFPA (National Fire Protection Association) HAZARD RATINGS

HEALTH	FLAMMABILITY	REACTIVITY
2	1	0

4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal

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This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. This data sheet is not a guarantee of safety. Users are responsible for insuring that they have all current information necessary to safely use the product described by this data sheet for their specific purpose.

It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.