

SOLERA ATO, LLC

Material Safety Data Sheet

Reckon™ 280SL Herbicide

Revision Date: 11-14-12

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: Reckon™ 280SL Herbicide
Chemical Name: Glufosinate ammonium (active ingredient)
EPA Registration No. 88685-2-84237
SOLERA ATO, LLC
PO BOX 21720
Mesa, Arizona 85277
USA

FOR MEDICAL EMERGENCIES, CONTACT National Poison Control Center number 1-800-222-1222
FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Glufosinate ammonium	77182-82-2	24.5
1-Methoxy-2-propanol	107-98-2	

SECTION 3. HAZARDS IDENTIFICATION

Emergency Overview

Warning! May be fatal if absorbed through skin. Causes substantial but temporary eye injury. Harmful if swallowed. Do not get in eye, on skin, or on clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Routes of Exposure

Eye contact, ingestion, inhalation, skin absorption.

Hazardous Decomposition Products

Can decompose at high temperatures forming toxic gases.

Physical Properties

Physical State: Liquid

Appearance: Blue

Unusual Fire, Explosion and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

SECTION 4. FIRST AID MEASURES

Have the product container, label or Material Safety Data Sheet with you when calling a poison control center or doctor, or going for treatment.

Ingestion: If swallowed: Call a poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so after calling a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Eye Contact: If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin Contact: 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.

Inhalation: 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.

Notes to Physician

There is no specific antidote if this product is ingested.
Treat symptomatically..

Medical Conditions Likely to be Aggravated by Exposure

None known.

SECTION 5. FIRE FIGHTING MEASURES

Fire and Explosion

Flash Point: > 200.1 °F
Flammable Limits (% in Air): Lower: % Not Applicable Upper: % Not Applicable
Autoignition Temperature: Not Available
Flammability: Not Applicable

Unusual Fire, Explosion and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

In Case of Fire

Use dry chemical, foam, water spray or CO₂ extinguishing media. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

SECTION 6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

SECTION 7. HANDLING AND STORAGE

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT. FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL

Ingestion: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.
Eye Contact: Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Skin Contact: Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.
Inhalation: A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

In case of emergency spills, use a NIOSH approved respirator with any N, R, P or HE filter.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Blue
Physical State	liquid
Odor	Not determined
pH	6.5-7.5 (100%)
Specific Gravity	1.126 at 20 °C
Melting / Freezing Point	Not Applicable

SECTION 10. STABILITY AND REACTIVITY

Stability:	Stable under normal use and storage conditions.
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	Heat, flames and sparks.
Materials to Avoid:	Strong acids, bases and oxidizing agents.
Hazardous Decomposition Products:	Can decompose at high temperatures forming toxic gases.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (Finished Product)

Ingestion:	Slightly Toxic	
	Oral (LD50 Rat):	>300 - <2,000 mg/kg body weight
Dermal:	Slightly Toxic	
	Oral (LD50 Male Rat):	1,400 mg/kg body weight
	Oral (LD50 Female Rat):	800 mg/kg body weight
Inhalation:	Inhalation (LC50 Rat):	>2.1 mg/l air – 4 hours
Eye Contact:	Severely Irritating (Rabbit)	
Skin Contact:	Slightly Irritating (Rabbit)	
Skin Sensitization:	A moderate skin sensitizer in animal tests.	

Reproductive/Developmental Effects

Glufosinate ammonium: Glufosinate ammonium was not a primary reproductive toxicant in rats. There was a decrease in the number of viable pups at the high dose in conjunction with maternal toxicity.
Glufosinate ammonium was not a primary developmental toxicant in rats and rabbits. Developmental effects (e.g., delayed ossifications) were observed in rats but were considered secondary to maternal toxicity.

Neurotoxicity Studies

Glufosinate ammonium: Glufosinate ammonium was not a neurotoxicant in acute and subacute neurotoxicity screening studies in rats. In a developmental neurotoxicity study in rats, offspring exposed to glufosinate ammonium showed increases in locomotor activities. These effects occurred at high doses and in conjunction with maternal toxicity.

Mutagenicity

Glufosinate ammonium: Glufosinate ammonium was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

SECTION 12. ECOLOGICAL INFORMATION

Environmental Precautions

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.

Do not allow to get into surface water, drains and ground water. Drift or runoff from treated areas may adversely affect non-target plants.

Apply this product as specified on the label. Do not apply when weather conditions favor runoff or drift.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

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

SECTION 14. TRANSPORT INFORMATION

DOT Classification

Ground Transport Not Regulated

B/L Freight Classification

Compounds, Tree or Weedkilling, N.O.I., other than poison, having a density of 20 LBS or greater per cubic foot (NMC Class 60).

SECTION 15. REGULATORY INFORMATION

TSCA list

Exempt from TSCA, subject to FIFRA

SARA Title III

Section 311/312

Acute Health Hazard

Chronic Health Hazard

Section 313 Chemical(s)

Glufosinate ammonium (24.5%) (CAS No. 77182-82-2)

CA Prop65

Not Applicable

CERCLA/SARA 302 Reportable Quantity (RQ)

Not Applicable

RCRA Hazardous Waste Classification (40 CFR 261)

Not Applicable

SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 2 Flammability - 1 Reactivity - 0 Others - none

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions.