MAXIMUM ECONOMIC YIELD

Safety Data Sheet
MEYCHEM Glufosinate 280 SL Herbicide

SECTION 1 - IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Product Name:	**MEYCHEM Glufosinate 280 SL Herbicide**
EPA Reg. No.:	87895-10-80967
Product Type/Use:	Group 10 Herbicide
Common Name:	Glufosinate-ammonium
Chemical Name (IUPAC):	2-amino-4-(hydroxymethylphosphinyl)butyric acid–monoammonium salt
Company Name:	**MEY Corporation**
Address:	121 S. Estes Drive, Suite 101, Chapel Hill, NC 27514
Telephone:	(919) 932-5800
Email:	safetydatasheets@meycorp.com
Emergency Telephone Number:	FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT Call CHEMTREC – Day or Night: 1-800-424-9300 toll free in the continental U.S., Puerto Rico, Canada, or Virgin Islands. For calls originating elsewhere: 1-703-527-3887 (collect calls accepted).

SECTION 2 – HAZARDS IDENTIFICATION

Hazard Classification:

OSHA Regulatory Status:

This product not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFT 1910.1200).



GHS Signal Word: CAUTION

Hazard statement: Harmful if swallowed or absorbed through skin. Causes moderate eye irritation.

Precautionary statement:

Avoid contact with skin, eyes, or clothing.

Wear protective eyewear, such as safety glasses.

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before use.

Storage:

Store locked up.

Refer to Section 7 for handling and storage.

SECTION 3 -- COMPOSITION/INFORMATION ON INGREDIENTS

Active ingredient:
Glufosinate-ammonium
2-amino-4-(hydroxymethylphosphinyl)butyric acid–monoammonium salt (IUPAC)

Composition

COMPONENT	CAS No.	PROPORTION
Glufosinate-ammonium	77182-82-2	25.3%
Inert Ingredients	Trade Secret	30-60%
Water	7732-18-5	To 100%

SECTION 4 – FIRST AID MEASURES

If Swallowed:	If swallowed, do not induce vomiting unless told to by a physician or poison control center. DO NOT give anything by mouth to an unconscious person.
If on Skin:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a physician or poison control center for treatment advice.
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 15 minutes, then continue rinsing eye. Call a physician or poison control center for treatment advice.
If Inhaled:	Move 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 physician or poison control center immediately.

Advice to Doctor Treat symptomatically. There is no specific antidote.

SECTION 5 – FIRE FIGHTING MEASURES

Extinguishing Media
Extinguish fire with foam, dry powder, carbon dioxide or water spray.

Special hazards arising from the substance or mixture
Not a fire or explosion hazard. In a fire, irritant and toxic fumes containing oxides of carbon, nitrogen, phosphorus and sulfur and other toxic substances may be generated.

Fire Fighting
Breathable air apparatus should be worn when fighting a fire in which this product is involved.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions
Avoid direct contact with spilled material or contaminated surfaces. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. If ordinary clothing becomes contaminated remove it immediately. Use personal protection recommended in Section 8.

Environmental precautions
Minimize spread. Contain spillage. Keep out of drains, sewers, ditches, and water ways.

Methods for cleaning up
SMALL QUANTITIES: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove

residual contamination.

LARGE QUANTITIES: Stop the flow of material if this can be done without risk. Dike the spilled material, where possible. Absorb in vermiculite, dry sand or earth and place into containers for disposal. After removal, neutralize the spill area, tools, and equipment with a dilute alkaline solution (soda ash or lime) followed by an appropriate alcohol (methanol, ethanol, or isopropanol). Wash the spill area, tools, and equipment with a strong soap and water solution. Absorb any excess liquid and add to the recovery drums of waste already collected.

Refer to Section 13 for disposal of spilled material. Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

SECTION 7 – HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN

Handling

Do not get in eyes, on skin or clothing. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Wash contaminated clothing before re-use. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. 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.

Storage

DO NOT use or store near heat or open flame. Keep the container tightly closed and dry in a cool, well- ventilated place. Storage temperature must not exceed 125°F. If storage temperature for bulk MEYCHEM Glufosinate 280 SL Herbicide is below 32°F, the material must not be pumped until its temperature exceeds 32° F. Protect against direct sunlight.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Control

Control process conditions to avoid contact. Use only in well-ventilated areas. If necessary, use local exhaust ventilation to keep airborne concentration below the exposure limits. Hand and eye wash facilities should be immediately available.

Personal Protective Equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply. To avoid contact with skin wear coveralls over short-sleeved shirt and short pants; chemical resistant gloves such as barrier laminate, butyl rubber >14 mils, nitrile rubber >14 mils, neoprene rubber >14 mils, polyvinyl chloride (PVC) >14 mils, or Viton>14 mils; chemical resistant footwear plus socks; protective eyewear (goggles, face shield or safety glasses).

General Protective Measures

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

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid
Color	Blue liquid
Odor	Mild
pH	6.5-8.0
Melting Point (°C)	NA
Boiling Point (°C)	NA
Bulk Density	1.09-1.16 g/cm3
Flammability Limits	NA

Solubility	Soluble in water

SECTION 10 – STABILITY AND REACTIVITY

Reactivity
This product is unlikely to react or decompose under normal storage conditions.

Chemical stability
Stable under normal conditions. Hazardous polymerization does not occur.

Conditions to Avoid
Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

Incompatibilities
Strong acids, strong bases, strong oxidizing agents. Ammonia may be evolved in the presence of alkalis.

Hazardous decomposition products
Carbon oxides, carbon monoxide, oxides of Sulphur.

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity - Oral
LD50 rat (male and female): 1750 mg/kg

Acute Toxicity - Dermal
LD50 rat (male and female): > 2000 mg/kg

Acute Toxicity - Inhalation
LC50 rat (male and female): 5.265 mg/L (4 hr)

Skin irritation
Slightly irritating (rabbit)

Eye irritation
Moderately irritating (rabbit)

Sensitization
Non-sensitizing (guinea pig)

Chronic
In animal studies glufosinate-ammonium showed no teratogenic, carcinogenic, mutagenic, or neurotoxic effects.

SECTION 12 – ECOLOGICAL INFORMATION

Glufosinate-ammonium is practically non-toxic to birds, fish, honeybees, earthworms, and beneficial insects. It is practically non-toxic to Daphnia, but moderately toxic to sensitive aquatic species. It is expected to be slightly to moderately toxic to wild animals. DO NOT contaminate streams, rivers, or waterways with the used containers.

Ecotoxicity (data on Glufosinate-ammonium)

Fish toxicity:	LC50 (96 h) rainbow trout 710 mg/L LC50 (96 h) carp, bluegill sunfish, golden orfe > 1000 mg/L
Bird toxicity:	Eight-day dietary LC50 Japanese quail > 5000 mg/kg
Daphnia toxicity:	*Daphnia magna* EC50 (48 h) 560 - 1000 mg/L
Algal toxicity:	LD50 for *Scenedesmus subspicatus* > 1000 mg/L LD50 for *Scenedesmus capricornutum* 37 mg/L

Environmental Fate, Persistence and Degradability, Mobility
Glufosinate-ammonium is very soluble in water and is hydrolytically and photolytically stable. It is rapidly degraded in surface levels of soils and in water. This product is considered to be readily biodegradable. The potential for groundwater contamination with glufosinate-ammonium is minimal. Glufosinate-ammonium does not accumulate

in the fatty tissues of fish or other animals.

SECTION 13 – DISPOSAL CONSIDERATIONS

DO NOT contaminate water food or feed by disposal

Disposal: Instructions concerning the disposal of this product and its containers are given on the product label. These should be carefully followed.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

CONTAINER HANDLING AND DISPOSAL

Rigid, Non-refillable containers small enough to shake (i.e., with capacities equal to or less than 5 gallons) Non-refillable container. **DO NOT** reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 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. Once container is rinsed, then offer for recycling if available or reconditioning if appropriate; or puncture and dispose of in a sanitary landfill, or by incineration; or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

All refillable container types (containers with capacities greater than 50 lbs)

Refillable container. Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. This is a sealed returnable container to be used only for MEYCHEM Glufosinate 280 SL Herbicide. When this container is empty, it must not be opened, cleaned, or discarded. Empty containers must be returned to the original purchase location.

Bottom discharge Intermediate Bulk Container (IBC) (containers with capacities greater than 50 lbs) Refillable container. Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. Empty the remaining contents from the Intermediate Bulk container (IBC) into application equipment or mix tank. Raise the bottom of the IBC by 1.5 inch on the side which is opposite of the bottom discharge valve to promote more complete product removal. Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve. Contact your Ag retailer for container return, disposal, and recycling recommendations.

SECTION 14 – TRANSPORTATION INFORMATION

According to national and international transport regulations this material is not classified as dangerous goods/ hazardous material.

SECTION 15 – REGULATORY INFORMATION

TSCA Inventory: This product is exempted from TSCA because it is solely for FIFRA regulated uses.

SARA Title III Rules

Section 311/312 Hazardous Chemicals: Yes

Section 302 Extremely Hazardous Substances: No chemicals in this material are subject to the reporting requirements.

Section 313 Toxic Chemicals: None

CERCLA Reportable quantity

None

California Prop. 65 Component

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any

other reproductive harm.

Federal Fungicide, Insecticide, Rodenticide Act (FIFRA)

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. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION
CAUSES TEMPORARY EYE INJURY

Acute oral toxicity: FIFRA category III.
Acute dermal toxicity: FIFRA category III.
Acute inhalation toxicity: FIFRA category IV.
Skin irritation: FIFRA category IV.
Eye irritation: FIFRA category IV.
Skin sensitization: No skin sensitization.

SECTION 16 – OTHER INFORMATION

The information given here is not necessarily exhaustive but is representative of relevant, reliable data. Follow all local, regional, national, and international regulations. Please consult supplier if further information is needed. For more information refer to the product label. Please consult MEY Corporation if further information is needed.

	Health	Flammability	Instability	Additional Markings
NFPA	2	1	0	
0 = Minimal hazard, 1 = Slight hazard, 2 = Moderate hazard, 3 = Severe hazard, 4 = Extreme hazard				

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. In the USA, 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 are set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA approved label.

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, MEY Corporation makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for the purposes prior to use. In no event will MEY Corporation be responsible for damages of any nature whatsoever resulting from the use of or reliance upon 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 TO THE PRODUCT TO WHICH INFORMATION REFERS.

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