



SAFETY DATA SHEET

1. IDENTIFICATION

PRODUCT NAME: RM43@-2
DESCRIPTION: A liquid herbicide.
EPA Reg. No.: 84009-36

COMPANY IDENTIFICATION:
Ragan & Massey, LLC.
101 Ponchatoula Parkway
Ponchatoula, LA 70454

2. HAZARD IDENTIFICATION

WARNING

Causes eye irritation (H320)
May be harmful if swallowed or in contact with skin (H303+H313)

HAZARD CLASSIFICATION

Health Hazards	Category	Physical Hazards	Category
Serious eye damage / eye irritation	2B	None	-
Acute toxicity, oral	5		
Acute toxicity, dermal	5	Environmental Hazards	Category
		None	-

HAZARDS NOT REQUIRING CLASSIFICATION

DO NOT mix or allow contact with oxidizing agents. Hazardous chemical reaction may occur.

PRECAUTIONARY STATEMENTS

Wash hands and exposed skin thoroughly after handling. Do not touch eyes. (P264+P265)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical help. (P305+P351+P338+P337+P317)

IF SWALLOWED: Get medical help. (P301+P317)

Dispose of contents / container in accordance with local regulations. Refer to the product label for specific disposal instructions. (P501)

3. COMPOSITION / INFORMATION ON INGREDIENTS

Common Name	Chemical Name	CAS #	Composition
Glufosinate-ammonium	Butanoic acid, 2-amino-4-(hydroxymethylphosphinyl)-, monoammonium salt	77182-82-2	11.33%
Imazapyr IPA Salt	3-Pyridinecarboxylic acid, 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-, compd. with 2-propanamine (1:1)	81510-83-0	1.10%

NOTE: Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information concerning this product call your poison control center at 1-800-222-1222.

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 a 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 IN EYES: Hold eye open and rinse slowly and gently with water for 15 to 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.

5. FIREFIGHTING MEASURES

Flash Point (PM): Not available

Flammable Limits: Not determined

Fire and Explosion Hazards: Product may generate irritating or toxic gasses through thermal decomposition.

Extinguishing Medium: Water spray, fog, dry foam, or CO₂

Fire Fighting Equipment: Firefighters should be equipped with self-contained positive pressure breathing apparatus and full bunker gear.

Fire Fighting Instructions: Evacuate area of all unnecessary personnel and fight fire from a safe distance upwind. Contain contaminated water / firefighting water; do not allow to enter drains or waterways. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water runoff.

Hazardous Combustion Products: Hydrogen chloride, oxides of carbon, nitrogen and phosphorus.

NFPA Ratings: Health – 1 / Flammability – 0 / Reactivity - 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Isolate area and keep unnecessary and unprotected personnel from entering. Wear suitable personal protective clothing and equipment as described in Section 8 of this document.

Environmental Precautions: Contain spillage and minimize spread. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Keep out of drains, sewers, ditches and water ways. Do NOT contaminate water when disposing of rinse waters.

Spill Cleanup: Dike spill using suitable absorbent or impervious materials such as sand or clay. Collect and contain contaminated absorbent and place in an appropriate container for disposal. Pump any free liquid into an appropriate closed container and decontaminate tools and equipment following cleanup. Collect washings for disposal.

7. HANDLING AND STORAGE

Keep out of reach of children.

Handling: Avoid contact with eyes or clothing. 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 reuse.

Storage: Store product in original container only. Store in a cool, dry place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash station and a safety shower.

Personal Protective Equipment: Wear long-sleeved shirt and long 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, shoes plus socks, protective eyewear.

General: 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. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	clear, slightly yellow liquid	pH:	6-7
Odor:	faint, slight unpleasant	Viscosity:	3.755 cSt @ 20°C 2.253 cSt @ 40°C
Melting/freezing point:	not determined	Solubility:	not determined
Boiling point/Boiling range:	not determined	Partition coefficient:	not determined
Flammability:	not determined	Vapor pressure:	not determined
Flammability limits (upper/lower):	not determined	Bulk Density:	1.0-1.1 g/mL
Flash point:	not determined	Relative vapor density:	not determined
Auto-ignition temperature:	not determined	Particle characteristics:	not determined
Decomposition temperature:	not determined		

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Excessive heat. Do not store near heat or open flame.

CHEMICAL STABILITY: This product is stable under normal handling and storage conditions.

INCOMPATIBILITY WITH OTHER MATERIALS: Do not mix or allow contact with oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Heat and fire may result in thermal decomposition and the release of hydrogen chloride and oxides of carbon, nitrogen, and phosphorus.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ORAL TOXICITY (rat LD₅₀): < 5,000 mg/kg (EPA Category III)

DERMAL TOXICITY (rat LD₅₀): 2,000-5,000 mg/kg (female rats) (EPA Category III)

INHALATION TOXICITY (rat LC₅₀): > 2.21 mg/L (4-hour) (EPA Category IV)

EYE IRRITATION: Rabbit – Mildly irritating to the eye. (EPA Category III)

SKIN IRRITATION: Rabbit – Slightly irritating to the skin (EPA Category IV)

SKIN SENSITIZATION: Mice - Not a contact sensitizer

CARCINOGENICITY:

EPA: Not likely to be carcinogenic to humans (glufosinate-ammonium)
Not Listed (imazapyr)

ACGIH: Not Listed **NTP:** Not Listed

IARC: Not Listed **OSHA:** Not Listed

MUTAGENIC TOXICITY: No evidence of mutagenic effects during *in vivo* and *in vitro* assays.

REPRODUCTIVE TOXICITY: Not known to cause reproductive or birth defects at normal exposure levels.

12. ECOLOGICAL INFORMATION

This product is toxic to plants. Drift and run-off may be hazardous to plants in water adjacent to treated areas.

The following information is for the active ingredient, Glufosinate ammonium:

AQUATIC TOXICITY

Rainbow Trout (96-hour LC₅₀): >312 mg/L; (21- day NOAEC): 50-110 mg/L

Sheepshead Minnow (96-hour EC₅₀): >963 mg/L

Daphnia (48-hour EC₅₀): 651 mg/L (calculated); (21-day NOAEC): 31-54 mg/L

Mysid Shrimp (96-hour EC₅₀): 7.5 mg/L (calculated)

Algae (72-hour IC₅₀): 100-100,000 mg/L

Duckweed (14-day IC₅₀): 0.8-1.47 mg/L

AVIAN TOXICITY

Bobwhite Quail (Oral LD₅₀): >2,000 mg/kg bw

Mallard Duck (Oral LD₅₀): >2,000 mg/kg bw

BEE TOXICITY

Bees (Oral and Contact LD₅₀) >100 µg/bee

12. ECOLOGICAL INFORMATION (CONT.)

The following information is for the active ingredient, Imazapyr:

AQUATIC TOXICITY:

Rainbow Trout (96-hr LC₅₀): >100 mg/L
Bluegill (96-hr LC₅₀): >100 mg/L
Diatoms (96-hr EC₅₀): 1.3 mg/L
Green Algae (7-day EC₅₀): 71 mg/L

AVIAN TOXICITY:

Bobwhite Quail (LC₅₀): > 2,150 mg/kg
Mallard Duck (LC₅₀): > 2,150 mg/kg

13. DISPOSAL CONSIDERATIONS

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

CONTAINER DISPOSAL: Nonrefillable container. Refer to the product label for specific container disposal instructions.

14. TRANSPORT INFORMATION

US-DOT:

Not regulated

IMDG:

Not regulated

IATA:

Not regulated

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

FIFRA –

This chemical is a pesticide product registered by the 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, and for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the pesticide label:

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Causes moderate eye irritation. Avoid contact with eyes or clothing. 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 reuse.

ENVIRONMENTAL HAZARDS

This product is toxic to plants. Drift and run-off may be hazardous to plants in water adjacent to treated areas. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark.

15. REGULATORY INFORMATION (CONT.)

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide. This product is excluded from listing requirements under EPA/TSCA.

SARA Title III – Section 302 Extremely Hazardous Substances

Not listed

SARA Title III – Section 311/312 Hazard Categories

Immediate (Acute)

SARA Title III – Section 312 Threshold Planning Quantity

N/A

SARA Title III – Section 313 Reportable Ingredients

None

CERCLA Reportable Quantity (RQ) –

None

CALIFORNIA PROP 65 STATUS –

This product does not contain any chemical known to the state of California to cause cancer or reproductive harm.

CANADA –

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

16. OTHER INFORMATION

DISCLAIMER: THIS INFORMATION IN THIS SDS IS BASED ON DATA AVAILABLE AS OF THE REVISION DATE GIVEN HEREIN, AND BELIEVED TO BE CORRECT. THIS SDS DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTING PRODUCT LABELING. CONTACT RAGAN & MASSEY, LLC. TO CONFIRM IF YOU HAVE THE MOST CURRENT SDS. JUDGMENTS AS TO THE SUITABILITY OF THE INFORMATION HEREIN FOR THE INDIVIDUAL'S OWN USE OR PURPOSES IS NECESSARILY THE INDIVIDUAL'S OWN RESPONSIBILITY. ALTHOUGH REASONABLE CARE HAS BEEN TAKEN IN THE PREPARATION OF SUCH INFORMATION, RAGAN & MASSEY, LLC. EXTENDS NO WARRANTIES, MAKES NO REPRESENTATIONS, AND ASSUMES NO RESPONSIBILITY AS TO THE ACCURACY OR SUITABILITY OF SUCH INFORMATION FOR APPLICATION TO THE INDIVIDUAL'S PURPOSES OR THE CONSEQUENCES OF ITS USE.

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