

SAFETY DATA SHEET

GLORY 4L

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1. IDENTIFICATION

Product name: **GLORY 4L (EPA Registration No. 66222-256)**
Chemical name of active ingredient(s): Metribuzin: 4-Amino-6-(1,1-dimethylethyl)-3-(methylthio)-1,2,4-triazin-5(4H)-one
Manufacturer/Registrant: Makhteshim Agan of North America, Inc.
3120 Highwoods Blvd., Suite 100
Raleigh, NC 27604
Phone: 1-919-256-9300
For fire, spill, and/or leak emergencies, contact Infotrac: Phone: 1-800-535-5053
For medical emergencies and health and safety inquiries, contact Prosar: Phone: 1-877-250-9291

2. COMPOSITION/INFORMATION ON INGREDIENTS

Classified in accordance with OSHA HCS 29 CFR 1910.1200.

Acute oral toxicity	4
Acute dermal toxicity	NC
Acute inhalation toxicity	4
Skin irritation	2
Eye irritation	NC
Skin sensitization	NC

NC: Not classified

SIGNAL WORD: WARNING

HAZARD STATEMENTS:

- Harmful if swallowed
- Harmful if inhaled
- Causes skin irritation

PICTOGRAM:



PRECAUTIONARY STATEMENTS:

- Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. If swallowed: Call a poison center or a doctor if you feel unwell. Rinse mouth.
- Avoid breathing fume/mist/vapors/spray. Use only outdoors or in a well-ventilated area. If inhaled, Remove victim to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
- Wash hand thoroughly after handling. Wear protective gloves. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice. Take off contaminated clothing and wash it before reuse.

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Contact PROSAR at 1-877-250-9291 for emergency medical treatment.

PHYSICAL OR CHEMICAL HAZARDS: Do not mix or allow to come into contact with oxidizing

STORAGE AND DISPOSAL: See Section 7 and 13.

OTHER HAZARDS: See Section 11 and 12.

3. HAZARDS IDENTIFICATIONS

MATERIAL	CAS #	%	OSHA PEL	ACGIH TLV	OTHER	NTP/IARC/OSHA Carcinogen
Metribuzin	21087-64-9	41	NA	5 mg/m ³	5 mg/m ³ * (TWA)	NA

N/E=Not established; NA=Not applicable

* NIOSH-REL

4. FIRST AID

FIRST AID	
IF SWALLOWED:	<ul style="list-style-type: none">• Immediately call a poison control center or doctor.• 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:	<ul style="list-style-type: none">• 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.
NOTE TO PHYSICIAN: Treat patient symptomatically. Symptoms of Poisoning. The compound does not cause any definite symptoms that would be diagnostic. Poisoning is accompanied by breathing difficulties and sedation.	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency medical treatment information, call Prosar 24 hours a day at 1-877-250-9291.	

5. FIRE FIGHTING MEASURES

FLASHPOINT: Not applicable

FLAMMABLE LIMITS (% in air): Not applicable

AUTOIGNITION TEMPERATURE: Not applicable

EXTINGUISHING MEDIA: Water, dry chemical, carbon dioxide (CO₂), foam and sand.

FIRE FIGHTING INSTRUCTIONS: Avoid contact with spilled product or contaminated surfaces. Evacuate personnel to safe area. Keep out of smoke, Fight fire from upwind position. Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers/tanks exposed to fire with water spray. Firefighter should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

UNUSUAL FIRE/EXPLOSION HAZARDS: In the event of fire the following can be released: Hydrogen cyanide (hydrocyanic acid), carbon monoxide (CO), nitrogen oxides (NO_x) and sulphur oxides.

HAZARDOUS DECOMPOSITION PRODUCTS: Irritating and toxic gases such as amines, carbon dioxide, mercaptans and sulphur oxides, may be generated by thermal decomposition or combustion.

6. ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES: Isolate area and keep unauthorized people away. Do not walk through spilled material. Avoid breathing dust and skin contact. Avoid generating dust (a fine water spray mist, plastic film cover, or floor sweeping compound may be used if necessary. Use recommended protective equipment while carefully sweeping up spilled material. Place in covered container for reuse or disposal. Scrub

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contaminated area with soap and water. Rinse with water. Use dry absorbent material such as clay granules to absorb and collect wash solution for proper disposal. Contaminated soil may have to be removed and disposed. Do not allow material to enter streams, sewers, or other waterways or contact vegetation.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING: Do not contaminate water, food, or feed by storage or disposal. Handle and open container in a manner as to prevent spillage.

PRECAUTIONS TO BE TAKEN IN STORAGE: Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Do not store above 100°F for extended periods of time. Storage below 20°F can result in formation of crystals. If product crystallizes, store at 50°F to 70°F and agitate to redissolve crystals. If container is damaged or spill occurs, use product immediately or dispose of product and damaged container as indicated below.

STORAGE TEMPERATURE (MIN/MAX): Do not transport or store above 50°C (122°F) or below -10°C (14°F). The 30-day storage temperature average must not exceed the recommended maximum.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, AND PACKAGING OF THE PRODUCT.

SKIN PROTECTION: Chemical-resistant gloves. Long-sleeved shirt and long pants, shoes plus socks.

EYE PROTECTION: Protective eyewear (e.g. goggles or full-face shield).

RESPIRATORY: Under normal handling conditions no respiratory protection is needed. However, if needed to prevent respiratory irritation, a NIOSH-approved particulate respirator may be used.

Follow manufacturer's instructions for cleaning/ maintaining personal protective equipment, PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS:

Users should:

- 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 the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

EXPOSURE GUIDELINES: Refer to Section 3.

ENGINEERING CONTROLS: Use adequate ventilation to minimize airborne concentrations of this material.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Milky white liquid

ODOR: Mild bitter

DENSITY: 1.107 g/cm³ (9.24 lbs/gallon)@24°C

pH: 6.01

FLASH POINT: not applicable

VISCOSITY (centipoises): 1338@24°C; 1188@43°C

SOLUBILITY: Not available

VAPOR PRESSURE: Not available

MELTING POINT/BOILING POINT: Not available

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10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions.

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBILITY: Aldehydes, bases and ketones.

INSTABILITY CONDITIONS: Sustained temperature above 37.8°C (100°F).

HAZARDOUS DECOMPOSITION PRODUCTS: Irritating and toxic gases such as amines, carbon dioxide, mercaptans and sulphur oxides, may be generated by thermal decomposition or combustion.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES:

Acute oral LD 50 (Rat):	1,078 mg/kg (female rat); 1,865 mg/kg (male rat)
Acute Dermal LD 50(Rat):	>2,000 mg/kg (male and female rat combined)
Acute Inhalation (Rat):	> 3.055 mg/L (4-hour) (male and female rat combined)
Eye Irritation (Rabbit):	Minimally irritating (rabbit)
Dermal Irritation (Rabbit):	Mild skin irritation (rabbit)
Dermal Sensitization (Guinea pig):	Not a dermal sensitizer (guinea pig)

LIKELY ROUTES OF EXPOSURE: Inhalation, skin contact, skin absorption, and eye contact.

SYMPTOMS OF ACUTE EXPOSURE: No specific systemic symptoms of overexposure are known to occur in humans. This product is mildly toxic orally and dermally and may cause moderate eye irritation and slight dermal irritation.

REPRODUCTION: Metribuzin was not a reproductive toxicant in a 2-generation reproductive study in rats.

DEVELOPMENTAL TOXICITY: Metribuzin was not a primary developmental toxicant in laboratory animals. Developmental effects were observed only at doses that caused maternal toxicity.

NEUROTOXICITY:

Metribuzin has been tested in acute and subchronic neurotoxicity screening studies in rats. Transient neurobehavioral effects (e.g., decreased motor activity) were observed in the acute study. Neuropathological changes were not observed in either study.

MUTAGENICITY: Metribuzin was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: 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 contaminate water when cleaning equipment or disposing of equipment washwater or rinsate.

ECOTOXICITY INFORMATION: (Based on Metribuzin technical)

Rainbow Trout 96-hour LC50:	64 - 76 mg/L
Bluegill Sunfish 96-hour LC50:	80 mg/L
<i>Daphnia magna</i> 48-hour EC50:	4.5 – 3.5 mg/L
Algae EC50 (72-h):	0.021 mg/L
Bobwhite quail LD50:	168 mg/kg
Mallard duck LD50:	460 – 680 mg/kg
Bee LD50 >	35 µg/bee

13. DISPOSAL CONSIDERATIONS

END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.

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PESTICIDE DISPOSAL: Open dumping is prohibited. 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. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the hazardous waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Dispose of product containers, waste containers, and residues according to label instructions and local, state, and federal health and environmental regulations.

14. TRANSPORT INFORMATION

DOT CLASSIFICATION:

Not regulated

INTERNATIONAL TRANSPORTATION

IMO (vessel): UN 3082, Environmentally hazardous substances, liquid, N.O.S. (Captan), 9, PGIII, Marine pollutant

IATA (air): UN 3082, Environmentally hazardous substances, liquid, N.O.S. (Captan), 9, PGIII, Marine pollutant

15. REGULATORY INFORMATION

FIFRA INFORMATION:

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 for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

CAUTION Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, and clothing.

SARA TITLE III CLASSIFICATION:

Section 302: Not applicable
Section 311/312: Acute health hazard (immediate)
Section 313: Metribuzin (CAS #21087-64-9) – 41%

CA PROPOSITION 65: Not applicable

CERCLA RQ: Not applicable

RCRA CLASSIFICATION: Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

TSCA STATUS: The ingredients of this product are listed on the TSCA inventory or are exempt.

16. OTHER INFORMATION

NFPA HAZARD RATINGS

HEALTH:	1	0	MINIMAL
FLAMMABILITY:	0	1	SLIGHT
REACTIVITY:	0	2	MODERATE
		3	HIGH
		4	SEVERE

SDS DATE: Issued 2-7-2014.

The information herein is given in good faith, but no warrant, express or implied, is made. Consult Makhteshim Agan of North America, Inc. for further information.