

1. IDENTIFICATION

Product name: **RUMBLE®**
 Chemical name of active ingredient(s): Sodium Salt of Fomesafen: 5-[2-chloro-4-(trifluoromethyl)Phenoxy]-N-(methylsulfonyl)-2-nitrobenzamide
 Manufacturer: Makhteshim Agan of North America, Inc.
 3120 Highwoods Boulevard, Suite 100
 Raleigh, NC 27604
 Phone: 919-256-9300
 For fire, spill, and/or leak emergencies, contact Infotrac: Phone: 800-535-5053
 For medical emergencies and health and safety inquiries, contact Prosar: Phone: 877-250-9291

2. HAZARDS IDENTIFICATION**PHYSICAL PROPERTIES:****APPARANCE:** Clear yellow liquid**ODOR:** Mild

EMERGENCY OVERVIEW: WARNING Causes skin irritation. Causes moderate eye irritation. Harmful if absorbed through skin. Harmful if swallowed. Do not get on skin or on clothing. Avoid contact with eyes. Prolonged or repeat skin contact may cause allergic reactions in some individuals.

HAZARDOUS DECOMPOSITION PRODUCTS: Not known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS NO.	%	ACGIH/TLV	OSHA/PEL	OTHER	NTP/IARC/OSHA (Carcinogen)
Fomesafen Sodium Salt	108731-70-0	22.1	NE	NE	NA	NA
Sodium Hydroxide	1310-73-2	1.9	2 mg/m ³ (STEL)(ceiling) (Irritation)	2 mg/m ³ (TWA)	NA	NA

NA: Not Applicable. NE: Not Established.

4. FIRST AID MEASURES**FIRST AID**

IF SWALLOWED:	<ul style="list-style-type: none"> Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to a person. 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.
IF IN EYES:	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 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.
IF INHALED:	<ul style="list-style-type: none"> 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.

HOT LINE NUMBER: Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact Prosar at 1-877-250-9291 for emergency medical treatment information.

5. FIRE FIGHTING MEASURES

FLASH POINT: >230°F

FLAMMABLE LIMITS: Not applicable.

EXTINGUISHING MEDIA: Dry chemical, foam or CO₂ extinguishing media.

FIRE & EXPLOSION HAZARDS: During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

FIRE-FIGHTING PROCEDURE: 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.

HAZARDOUS COMBUSTION PRODUCTS: None known.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO TAKE FOR SPILLS/LEAKS: 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.

7. HANDLING AND STORAGE

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container.

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

PRECAUTIONS TO BE TAKEN IN STORAGE: Store above 32°F in original containers only. If product freezes, return to room temperature and agitate to reconstitute. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with sand, earth or synthetic absorbent. Remove to chemical waste area.

STORAGE TEMPERATURE (MIN/MAX): Do not Store below 32°F

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.

EYE PROTECTION: Wear chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

SKIN PROTECTION: Wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyvinyl chloride [PVC] OR Viton), coveralls, socks and chemical-resistant footwear.

RESPIRATOR REQUIREMENTS: A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits. When respiratory protection is required, use a NIOSH approved respirator with any N, R, P, or HE filter.

ADDITIONAL PROTECTIVE MEASURES: 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:

Users should:

- 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.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove clothing immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

EXPOSURE GUIDELINES: Refer to Section 2.

ENGINEERING CONTROLS: Use this material only in well ventilated areas. Unless ventilation is adequate to keep airborne concentration below recommended exposure standards, approved respiratory protection should be worn.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPARANCE: Clear yellow liquid

ODOR: Mild

pH: 6.70

DENISTY: 1.100 g/cm³ (9.18 lbs/gal) @25°C; 1.090 g/cm³ (9.10 lbs/gal) @40°C

FLASH POINT: >230°F

VISCOSITY: 76.8 centipoise @25°C; 37.8 centipoise @40°C

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable at normal ambient temperatures.

SPECIFIC MATERIALS TO AVOID: Acids.

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

HAZARDOUS POLYMERIZATION: Not known to occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES:

Acute Oral LD50 (Rat):	> 3,863 mg/kg (based on results from similar product[s])
Acute Dermal LD50 (Rat):	> 2,000 mg/kg (based on results from similar product[s])
Acute Inhalation LC50 (Rat):	2.1 mg/L (4-hr) (based on results from similar product[s])
Eye Irritation (Rabbit):	Mildly irritating
Dermal Irritation (Rabbit):	Slightly irritating.
Dermal Sensitization (Guinea Pig):	A moderate skin sensitizer in animal test. (based on results from similar product[s])

CHRONIC/SUBCHRONIC: Fomesafen Sodium Salt: Liver effects seen at 10 ppm and 100 ppm in 90-day rat feeding studies and in 6-month dog studies at 25 mg/kg/day. (based on Fomesafen Technical)

No evidence of neurotoxicity from subacute or longer-term studies in mammals. (based on Fomesafen Technical)

REPRODUCTIVE/DEVELOPMENTAL: Fomesafen Sodium Salt: Non-genotoxic in *in vitro* and *in vivo* assays. Hepatic changes and a small effect on reproductive performance seen in a 3-generation rat study at the 1000 ppm dose level. (based on Fomesafen Technical).

CARCINOGENICITY: Fomesafen Sodium Salt: Increased rates of malignant liver tumors in a 2-year mouse feeding study (1000 ppm), but the results are not considered relevant to man. (based on Fomesafen Technical)

TARGET ORGANS: Fomesafen Sodium Salt: Liver (based on Fomesafen Technical)

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 disposing of equipment washwaters or rinsate. Do not apply when weather conditions favor drift from target area.

ECOTOXICITY EFFECTS: (Based on Fomesafen Technical, not Fomesafen Sodium Salt)

Fish (Rainbow Trout) 96-hour LC₅₀ : 680 ppm

Invertebrate (Water Flea) Daphnia Magna 48-hour EC₅₀: 294 ppm

Bird (Mallard Duck) 14-day LD₅₀ : > 5,000 mg/kg

ENVIRONMENTAL FATE: Fomesafen Sodium Salt: The information presented here is for the active ingredient, Fomesafen. Persistent in soil. Stable in water. Highly mobile in soil. Will leach, Sinks in water (after 24 hours).

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. 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): Not regulated.

IATA (air): Not regulated.

15. REGULATORY INFORMATION

SARA TITLE III CLASSIFICATION:

Section 302: Not applicable.

Section 311/312: Acute health hazard (immediate)

Section 313: Fomesafen Sodium (22.1%) (CAS#: 108731-70-0)

CA PROPOSITION 65: Not applicable.

CERCLA RQ: Sodium Hydroxide (CAS#:1310-73-2) RQ: 1,000 lbs

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

MSDS DATE: 12-17-12

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.