

# MATERIAL SAFETY DATA SHEET

## THRASHER

Page 1 of 6

### 1. IDENTIFICATION

Product name: **THRASHER (PCP Reg. No. 28779)**  
Chemical name of active ingredient(s): Bromoxynil present as octanoate ester: 3,5-dibromo-4-hydroxybenxonitrile  
2,4-D present as 2-ethylhexyl ester: (2,4-dichlorophenoxy) acetic acid  
Manufacturer/Registrant: Makhteshim Agan of North America, Inc.  
4515 Falls of Neuse Road, Suite 300  
Raleigh, NC 27609  
Phone: 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

COMMON NAME	CAS NO.	%	OSHA PEL	ACGIH TLV	OTHER	NTP/IARC/OSHA (CARCINOGEN)
Bromoxynil octanoate	1689-99-2	30.37	NA	NA	NA	NA
2,4-D, 2-ethylhexyl ester	25168-26-7	31.03	NA	NA	NA	NA
Aromatic hydrocarbons containing:	64742-94-5	31.42	NA	NA	NA	NA
Naphthalene	91-20-3	3.11	50 mg/m <sup>3</sup> (TWA)	52 mg/m <sup>3</sup> (TWA)	NA	IARC: 2B NTP: 2

NA=Not applicable

IARC Group 2B: The agent is possibly carcinogenic to humans. The exposure circumstance entails exposures that are possibly carcinogenic to humans.

NTP Group 2: Substances or groups of substances, and medical treatments, which may reasonably be anticipated to be carcinogens.

### 3. HAZARDS IDENTIFICATIONS

#### PHYSICAL PROPERTIES

Appearance: Brownish clear liquid

Odor: Phenoxy

**EMERGENCY OVERVIEW:** Warning. Eye and skin irritant. Potential skin sensitizer. Harmful or fatal if swallowed. Causes eye and skin irritations. Do not get in eyes. Do not get on skin. Store the container tightly closed away from seeds, feeds, fertilizer, plants and foodstuffs. Wash concentrate from skin or eyes immediately. Avoid working in spray mist. After use wash hands and other exposed skin.

**PRIMARY ROUTES OF EXPOSURE:** Eye and skin contact, ingestion and skin adsorption.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Bromine compounds, nitrogen oxides and cyanide.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema, or bronchitis. Skin contact may aggravate existing skin disease.

### 4. FIRST AID

#### FIRST AID:

**IF SWALLOWED:** Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

# MATERIAL SAFETY DATA SHEET

## THRASHER

Page 2 of 6

**IF ON SKIN/CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor 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 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

**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."

Take the container label or product name and Pest Control Product Registration Number with you when seeking medical attention.

**TOXICOLOGICAL INFORMATION:** This product contains an aromatic hydrocarbon solvent. This product contains petroleum distillates. Vomiting may cause aspiration pneumonia. This product may cause mild irritation to the eyes. Overexposure to 2,4-D may cause coughing, burning, dizziness or temporary loss of muscle coordination. Other possible effects of overexposure include fatigue, muscle weakness or nausea. Treat symptomatically.

### 5. FIRE FIGHTING MEASURES

**FLASH POINT:** 61.2°C (142° F)

**FLAMMABLE LIMITS: LFL/UFL:** Not applicable.

**EXTINGUISHING MEDIA:** Foam, CO<sub>2</sub>, dry chemical, water fog.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Decomposition Type: thermal. Bromine compounds, nitrogen oxides, and cyanide.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Product will burn under fire conditions. Under fire conditions, toxic, corrosive fumes are emitted. Vapors may travel a considerable distance to a source of ignition and flash back along vapor trail.

**FIRE-FIGHTING PROCEDURES:** Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Keep unnecessary people away, isolate hazard area and deny entry. Evacuate residents who are downwind of fire. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later. Persons who may have been exposed to contaminated smoke should be immediately examined by a physician and checked for symptoms of poisoning. The symptoms should not be mistaken for heat exhaustion or smoke inhalation.

### 6. ACCIDENTAL RELEASE MEASURES

**ACTION TO TAKE FOR SPILLS/LEAKS:** Dike spill using absorbent or impervious materials such as earth, sand, or clay. Prevent material from entering public sewer system or any waterway. If spilled on the ground, the affected area should be removed to a depth of one or two inches and placed in an appropriate container for disposal.

Clean up small spills immediately, use proper personal protection. Absorb spill with absorbent material such as pet litter. After removal, flush contaminated area thoroughly with water containing a strong detergent. Sweep up and place in a chemical container. Seal the container and handle in an approved manner. Keep spills out of streams and domestic water supplies. Dike to prevent contamination of local water sources. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. Dispose of all waste and rinsate in the appropriate manner. Decontaminate tools and equipment following cleanup.

### 7. HANDLING AND STORAGE

**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 get on skin or in eyes. Do not ingest. Avoid breathing vapors and mists. If freezing occurs, thaw and remix before using. Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet. Wash exposed skin promptly to remove accidental splashes of contact with this material.

# MATERIAL SAFETY DATA SHEET

## THRASHER

Page 3 of 6

**PRECAUTIONS TO BE TAKEN IN STORAGE:** THRASHER formulation will solidify at temperatures below -20°C (-4° F), but will become usable at temperatures above 0°C (32° F). Insecticides and fungicides should be separated from herbicides so as to prevent the possibility of cross contamination. Shake well before using.

**STORAGE TEMPERATURE (MIN/MAX):** Do not store below 0°C (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:** Protective eyewear (e.g., full-face shield or safety glasses).

**SKIN PROTECTION:** Coveralls over long-sleeved shirt and long pants, shoes plus socks and head covering (for overhead exposure).

**HAND PROTECTION:** Chemical-resistant nitrile gloves.

**RESPIRATOR REQUIREMENTS:** In areas with inadequate ventilation a NIOSH-approved chemical cartridge respirator with organic vapor cartridges and pesticide pre-cartridges or a self-contained breathing apparatus may be required when working with this product.

**ADDITIONAL PROTECTIVE MEASURES:** Discarded 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 hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- 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:** Minimize airborne concentrations.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** Brownish clear liquid

**ODOR:** Phenoxy

**FLASH POINT:** 61.2°C (142° F)

**pH:** 3.84 ±0.17 (1% w/w solution)

**DENSITY:** 1.121 g/mL

**VISCOSITY:** 14.027 centistokes @ 20° C; 6.583 centistokes @ 40° C

### 10. STABILITY AND REACTIVITY

**STABILITY:** Stable under normal use and storage conditions.

**CONDITIONS TO AVOID:** Elevated temperatures; Open flame; Spark; Static electricity.

**MATERIALS TO AVOID:** Strong oxidizing agents; Bases; Mineral acids.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Decomposition Type: thermal. Bromine compounds, nitrogen oxides, cyanide

### 11. TOXICOLOGICAL INFORMATION

#### **ACUTE TOXICITY/IRRITATION STUDIES:**

Acute Oral LD50 (Rat):	550 mg/kg
Acute Dermal LD50 (Rat):	>2,000 mg/kg
Acute Inhalation LC50 (Rat):	>2.04 mg/L (4-hr)

# MATERIAL SAFETY DATA SHEET

## THRASHER

Page 4 of 6

Eye Irritation (Rabbit):	Moderately irritating.
Dermal Irritation (Rabbit):	Moderately irritating.
Dermal Sensitization (Guinea Pig):	Positive for dermal sensitization.

### 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL HAZARDS:** This product contains a petroleum distillate. TOXIC to small mammals, birds, aquatic organisms and non-target terrestrial plants. Observe buffer zones specified under directions for use.

### 13. DISPOSAL CONSIDERATIONS

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

**PRODUCT DISPOSAL:** For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for cleanup of spills.

**CONTAINER DISPOSAL:** Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site: 1) Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank. 2) Make the empty, rinsed container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements. For disposal of returnable containers, this empty container may be returned to the point of purchase (distributor/dealer). For disposal of returnable-refillable containers, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.

### 14. TRANSPORT INFORMATION

#### DOT CLASSIFICATION:

<34.5 gals: Not regulated  
>/=34.5 gals: UN3082, Environmentally hazardous substances, liquid, N.O.S. (2,4-D, Bromoxynil), 9, PGIII, RQ

#### INTERNATIONAL TRANSPORTATION:

##### IMO (vessel):

<34.5 gals: UN3082, Environmentally hazardous substances, liquid, N.O.S. (2,4-D, Bromoxynil), 9, PGIII, Marine Pollutant  
>/=34.5 gals: UN3082, Environmentally hazardous substances, liquid, N.O.S. (2,4-D, Bromoxynil), 9, PGIII, Marine Pollutant, RQ

##### IATA (air):

<34.5 gals: UN3082, Environmentally hazardous substances, liquid, N.O.S. (2,4-D, Bromoxynil), 9, PGIII, Marine Pollutant  
>/=34.5 gals: UN3082, Environmentally hazardous substances, liquid, N.O.S. (2,4-D, Bromoxynil), 9, PGIII, RQ

### 15. REGULATORY INFORMATION

#### CANADIAN REGULATIONS:

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

**Ingredient Disclosure List:** Naphthalene

#### U.S. FEDERAL REGULATIONS:

**REGULATIONS UNDER FIFRA:** All pesticides are governed under FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act). Therefore, the regulations presented below are pertinent only when handled outside of the normal use and applications of pesticides. This includes waste streams resulting from manufacturing/formulation facilities, spills or misuse of products, and storage of large quantities of products containing hazardous or extremely hazardous substances.

# MATERIAL SAFETY DATA SHEET

## THRASHER

Page 5 of 6

### SARA TITLE III CLASSIFICATION:

Section 302: Not applicable.  
Section 311/312: Acute health hazard (immediate)  
Delayed health hazard (chronic)  
Fire  
Section 313: Bromoxynil octanoate CAS #: 1689-99-2 (30.37%)

**CA PROPOSITION 65:** This material contains a substance (bromoxynil octanoate) known to the State of California to cause development toxicity. This material contains a substance (naphthalene) known to the State of California to cause cancer.

**CERCLA RQ:** 2,4-D RQ=100 lbs. (34.5 gallons of product)

**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

HAZARD RATINGS	NFPA	HMIS	
HEALTH:	2	2	0 LEAST
FLAMMABILITY:	1	1	1 SLIGHT
REACTIVITY:	0	0	2 MODERATE
			3 HIGH
			4 SEVERE

**MSDS DATE:** 6-10-11. Supersedes version dated 1-17-08. Changes made to sections, 1, 4, 12, 14 and 15.

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