

Syngenta Crop Protection Canada, Inc.

MATERIAL SAFETY DATA SHEET

REFLEX[®] Herbicide

Date issued: 03-09-18 (Y/M/D)

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company : Syngenta Crop Protection Canada, Inc.
140 Research Lane
Guelph,
Ontario N1G 4Z3
Phone number : (519) 836-5665
Emergency phone : 1-800-327-8633 (1-800-FASTMED)
Name used on label : REFLEX[®] Herbicide
Product use : Herbicide
Formulation Number: A8339B
Registration Number: 24779

A Registered Trade Mark of a Syngenta group company

Section 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Identity	CAS-no.	Typical %	Other information
fomesafen sodium salt	108731-70-0	22.8 %	
inerts		77.2 %	

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

Section 3 - HAZARDS IDENTIFICATION

Physical hazards: None

Health hazards: Irritant (skin).

Section 4 - FIRST AID MEASURES

GENERAL ADVICE: If you feel unwell, seek medical advice (show the label where possible).

IF IN EYES:

Immediately flush eyes with running water for a minimum of 20 minutes.
Hold eyelids open during flushing. If irritation persists, repeat

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flushing. Obtain medical attention immediately.

IF ON SKIN:

Flush skin with running water for a minimum of 20 minutes. Start flushing while removing contaminated clothing. If irritation persists, repeat flushing. Obtain medical attention immediately.

IF SWALLOWED:

Provided the patient is conscious, wash out mouth with water. Immediately contact Syngenta's Emergency Information Network at 1-800-F-A-S-T-M-E-D (327-8633). Do not induce vomiting. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer water. Obtain immediate medical attention.

IF INHALED:

Remove victim to fresh air. Obtain medical attention.

MEDICAL ADVICE:

Symptomatic treatment and supportive therapy as indicated.

Section 5 - FIRE FIGHTING MEASURES

Flash point: Not applicable

Autoignition temperature: Not applicable

Flammable limits (STP): Not applicable

EXTINGUISHING MEDIA:

Foam, carbon dioxide, water or dry chemical. Use water as a spray or fog; avoid use of water jet.

PROTECTIVE EQUIPMENT:

Self-contained breathing apparatus with full face-piece and protective clothing

Unusual fire and explosion hazards:

Combustion or thermal decomposition will evolve toxic and irritant vapors.

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Section 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

Steps to be taken in case material is released or spilled:

Collect product for re-use or disposal. For release to land, contain storm water runoff by diking with earth or other barrier; for release to water, utilize damming, and/or water inversion to minimize the spread of contamination. Collect contaminated soil and water in plastic-lined containers for disposal. Notify applicable government authority if release is reportable or could adversely affect the environment.

Liquid spills on floor or other impervious surfaces should be contained or diked, and should be absorbed with attapulgate, bentonite or other absorbent clays. Place contaminated absorbent in plastic lined metal drums for disposal. Thoroughly scrub floor or other impervious surfaces with a strong industrial type detergent solution and rinse with water.

METHODS FOR CLEANING UP:

Seal drum and dispose of contaminated material in a facility permitted for hazardous waste. Large spills should be handled according to a spill plan.

Section 7 - HANDLING AND STORAGE

REQUIREMENTS FOR STORAGE ROOMS:

Keep container tightly closed. Keep locked up. Keep out of the reach of children and away from food.

Do not expose sealed containers to temperatures above 40°C. Store above 0°C. If crystallization occurs because of storage below 0°C., warm to room temperature, agitate until reconstituted.

ADDITIONAL INFORMATION:

Workers must follow good personal hygiene practices.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits

TLV or suggested control value:

No Occupational Exposure Limit Assigned Control of exposure to below the PEL for the ingredients (see Section 2) may not be sufficient. Minimize exposure in accordance with good hygiene practice. Syngenta operates its facilities so that exposure to Fomesafen, the active ingredient do not exceed 2.0 mg/m³.

VENTILATION:

If needed, use local exhaust to minimize exposures.

EYE PROTECTION:

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— Chemical tight goggles; full face-shield in addition if splashing is possible.

BODY PROTECTION:

Protective clothing as needed, impervious gloves, apron and arm covers. Depending upon conditions of use, additional protection may be required to prevent skin contact.

RESPIRATORY PROTECTION:

Use MSHA-NIOSH approved respirator for pesticides.

Special precautions or other comments:

Avoid breathing vapors or aerosols. Prevent skin and eye contact with this material. Workers must follow good personal hygiene practices.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Form: liquid

Formulation Type: Soluble concentrate

Colour: pale yellow

Odour: mild amide

Boiling point: 100.6°C

Freeze point: - 5°C

Vapor Pressure: fomesafen $<1 \times 10^{-7}$ at 50°C

Viscosity: 4.9 cps

Vapour density: Not available. (air = 1)

Specific gravity: 1.11g/mL at 20 °C

Solubility: soluble

pH-value: 8.7 - 10

Threshold odour: Not available.

Burning time: Not available

Explosive properties: Not available

Sensitivity to Mechanical Impact: Not expected to be sensitive to mechanical impact.

Discharge Rate: Not expected to be sensitive to static discharge.

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Section 10 - STABILITY AND REACTIVITY

HAZARDOUS REACTIONS (CONDITIONS TO AVOID)

Stability: Stable at room temperature.
Incompatibility: Acids.
Hazardous polymerization: Will not occur.

HAZARDOUS REACTIONS (MATERIALS TO AVOID)

None known

HAZARDOUS DECOMPOSITION PRODUCTS

Thermal decomposition products are toxic and may include ammonia; halogens, halogen acids; oxides of carbon, nitrogen and sulphur; traces of carbonyl halide.

Section 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY (LETHAL DOSES)

LD50 Oral female rats

Dose: 6950 mg/kg

LD50 Oral male rats

Dose: 8160 mg/kg

Additional inform.: Low oral toxicity.

LD50 Dermal rat

Dose : > 3100 mg/kg

Additional inform. : Slight/mild irritant to rabbit skin. Unlikely to be hazardous by skin absorption. Concentrated fomesafen, but not the formulation, has induced sensitisation in guinea pigs.

Inhalation

Additional inform. : Unlikely to cause harmful effects under normal conditions of handling and use. Exposure to high concentrations of mists of this material can irritate mucous membranes.

ACUTE TOXICITY (IRRITATION, SENSITISATION ETC.)

Eye contact rabbit: Corrosive

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GENERAL INFORMATION ABOUT ACUTE OR OTHER TOXICITIES

General information

This health hazard assessment is based on toxicity data that are available on the formulated product.

The ingredient(s) of this product is (are) not classified as carcinogenic by ACGIH or IARC, not regulated as carcinogens by OSHA and not listed as carcinogens by NTP.

Fomesafen is unlikely to be a human carcinogen. There is no evidence of mutagenic potential. There is also no evidence of adverse reproductive effects, teratogenicity or fetotoxicity in the absence of maternal toxicity.

Section 12 - ECOLOGICAL INFORMATION

ECOTOXICITY

Assessment: Unlikely to cause harmful effects.

Additional inform. : Fomesafen LC50 (rainbow trout, 96 hrs.) = 680 mg/l.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Method:

Empty container retains product residue. Observe all hazard precautions. Do not distribute or make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue from container and puncture or otherwise destroy empty container before disposal. Container disposal:

Empty container retains product residue. Observe all hazard precautions. Do not distribute or make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue from container and puncture or otherwise destroy empty container before disposal.

Section 14 - TRANSPORT INFORMATION

TRANSPORT/ADDITIONAL INFORMATION

Road (TDG) transport: Not Regulated By TDG

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Section 15 - REGULATORY INFORMATION

Other regulations, restrictions and prohibitions

Pest Control Products (PCP) Act Registration No.:
24779

Section 16 - OTHER INFORMATION

The information contained herein is offered only as a guide to the handling of this specific material and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other and additional considerations. No warranty of any kind is given or implied and Syngenta will not be liable for any damages, losses, injuries or consequential damages which may result from the use of or reliance on any information contained herein. This Material Safety Data Sheet is valid for three years. This product is under the jurisdiction of the Pest Control Products Act and is exempt from the requirements for a WHMIS compliant MSDS. Hazardous properties of all ingredients have been considered in the preparation of this MSDS. Read the entire MSDS for the complete hazard evaluation of this product.

Prepared by: Syngenta Crop Protection Canada, Inc. (519) 836-5665