



SAFETY DATA SHEET

The Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Badge

Revision date 26-Jan-2026

Version 1 Supersedes Date: 26-Jan-2026

Product Code(s) HRB01148-1

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ADM.09151.H.1.A 9510081

1. Identification

Product identifier

Product Name Badge

Other means of identification

Document ADAMA-317

Synonyms Bromoxynil 225 MCPA 225 EC

Recommended use of the chemical and restrictions on use

Recommended use Herbicide

Restrictions on use No information available

Details of the supplier of the safety data sheet

Supplier Address

ADAMA Agricultural Solutions Canada Ltd.
300-191 Lombard Avenue
Winnipeg, Manitoba R3B 0X1
1-855-264-6262

Emergency telephone number

Emergency Telephone For fire, spill and/or leak contact INFOTRAC: 1-800-535-5053 (North America)
1-352-323-3500 (International) For medical emergencies and health/safety inquiries,
contact ProPharma Group: 1-877-250-9291

2. Hazard(s) identification

This chemical is a product registered under the Pest Control Products Act (PCPA) of Canada and is subject to certain labeling requirements under federal law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-PCPA registered chemicals. Please see Section 15 for additional information. This product has been classified according to Canada's Hazardous Product Regulations (WHMIS 2015).

Classification

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Carcinogenicity	Category 2
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Aspiration hazard	Category 1
Flammable liquids	Category 4

Label elements**Signal word: Danger****Hazard statements**

Harmful if swallowed
Harmful if inhaled
Suspected of causing cancer
Suspected of damaging fertility or the unborn child
May cause drowsiness or dizziness
May be fatal if swallowed and enters airways
Combustible liquid

**Precautionary Statements - General**

Keep out of reach of children

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wear protective gloves/protective clothing/eye protection/face protection
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
Rinse mouth
IF SWALLOWED: Immediately call a POISON CENTER or doctor
Do NOT induce vomiting
IF INHALED: Remove person to fresh air and keep comfortable for breathing
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

Precautionary Statements - Storage

Store locked up
Store in a well-ventilated place. Keep container tightly closed
Store in a well-ventilated place

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other information

Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

3. Composition/information on ingredients**Substance**

Not applicable.

Mixture**Synonyms** Bromoxynil 225 MCPA 225 EC.

Chemical name	CAS No.	Weight-%	INTERNATIONAL GHS CLASSIFICATION
MCPA-2-ethylhexyl ester	29450-45-1	30-34	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Acute Tox. 4 (H332) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Bromoxynil octanoate	1689-99-2	28-32	Acute Tox. 4 (H302) Acute Tox. 3 (H331) Skin Sens. 1 (H317) Repr. 2 (H361) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Hydrocarbons, C10, aromatics, >1% naphthalene	64742-94-5	28-32	Asp. Tox. 1 (H304)Carc. 2 (H351)Aquatic Chronic 2 (H411)STOT SE 3 (H336)
2-Ethylhexanol	104-76-7	1-3	Acute Tox. 4 (H332) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)

4. First-aid measures**Description of first aid measures**

General advice	IF exposed or concerned: Get medical advice/attention. First aider: Pay attention to self-protection.
Inhalation	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.
Ingestion	Do NOT induce vomiting. Immediate medical attention is required. Call a poison control center or doctor for treatment advice. Never give anything by mouth to an unconscious person.
Self-protection of the first aider	Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed**Symptoms** None known.**Indication of any immediate medical attention and special treatment needed****Note to physicians** Treat symptomatically.**5. Fire-fighting measures****Suitable Extinguishing Media** Dry chemical. Carbon dioxide (CO₂). Water spray. Alcohol resistant foam.

Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
Specific hazards arising from the chemical	Combustible liquid. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray.
Explosion data	
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	Yes.
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protective equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Take precautionary measures against static discharges. Do not touch or walk through spilled material. Ensure adequate ventilation. Avoid breathing vapors or mists.
Other information	Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment	Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far ahead of liquid spill for later disposal.
Methods for cleaning up	Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling	Use personal protective equipment. Do not breathe vapor or mist. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Use with local exhaust ventilation. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. In case of insufficient ventilation, wear suitable respiratory equipment.
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Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Keep out of the reach of children. Store locked up. Store away from other materials.
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8. Exposure controls/personal protection

Control Parameters

Exposure Limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering controls

Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tight sealing safety goggles.

Hand protection

Wear suitable gloves.

Skin and body protection

Wear suitable protective clothing.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations

Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

9. Physical and chemical properties

Information on basic physical and chemical properties

<u>Property</u>	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Appearance			
Physical state	: Liquid		
Color	: amber		
Odor	: No data available		
Odor threshold	: No data available		
pH	: 3 - 5		
Melting point / freezing point °C	: No data available		
Boiling point / boiling range °C	: No data available		
Flash point °C	: > 70		
Evaporation rate	: No data available		
Flammability (solid, gas)	: Not applicable		
Upper/lower flammability or explosive limits	: No data available		
Vapor pressure kPa	: No data available		
Vapor density	: No data available		
Relative density	: 1.05 - 1.15		
Solubility(ies) mg/l	: No data available		
Partition coefficient Log Pow	:		See Section 12 for additional Ecological Information
Autoignition temperature °C	: No data available		
Decomposition temperature °C	: No data available		
Kinematic viscosity mm ² /s 40 °C	: ---		No data available
Explosive properties	: No data available		
Oxidizing properties	: No data available		
Surface tension	: No data available		

Particle Size : Not applicable

Other information

Bulk density g/ml : Not applicable

10. Stability and reactivity

Reactivity

No information available.

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks. Excessive heat.

Incompatible materials

None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Information on toxicological effects

Acute toxicity

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Oral LD50 mg/kg	: 600 - 2000	Rat	OECD 423	
Dermal LD50 mg/kg	: > 5000	Rat	OECD 402	
Inhalation LC50 LC50 (4 hr)	: 4.82	Rat	OECD 403	
Skin corrosion/irritation	: Non-irritating to the skin	Rabbit	OECD 404	
Serious eye damage/eye irritation	: Not irritating to eyes	Rabbit	OECD 405	
Sensitization	: Not a skin sensitizer	Guinea pig	OECD 406	

Chronic toxicity

Germ cell mutagenicity

Chemical name

MCPA-2-ethylhexyl ester : Not classified

Bromoxynil octanoate : Not classified

Carcinogenicity

Chemical name

MCPA-2-ethylhexyl ester : No data available

Bromoxynil octanoate : Not Carcinogenic

Hydrocarbons, C10, aromatics, >1% naphthalene : Suspected of causing cancer

Reproductive toxicity

Chemical name

MCPA-2-ethylhexyl ester : Not classified

Bromoxynil octanoate : Suspected of damaging fertility or the unborn child

STOT - Single Exposure

Chemical name

MCPA-2-ethylhexyl ester

Bromoxynil octanoate : No data available
 : No data available
 Hydrocarbons, C10, aromatics, >1% naphthalene : H336 - May cause drowsiness or dizziness

STOT - Repeated Exposure**Chemical name**

MCPA-2-ethylhexyl ester : No data available
 Bromoxynil octanoate : No data available

Aspiration hazard**Chemical name**

MCPA-2-ethylhexyl ester : No data available
 Bromoxynil octanoate : No data available
 Hydrocarbons, C10, aromatics, >1% naphthalene : H304 - May be fatal if swallowed and enters airways

12. Ecological information**Ecotoxicity****Aquatic toxicity**

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Acute toxicity				
Fish 96-hour LC50 mg/L	: ----			No data available
Crustacea 48-hour EC50 mg/L	: ----			No data available
Algae 72-hour EC50 mg/L	: ----			No data available
Other plants EC50 mg/l	: ----			No data available

Chronic aquatic toxicity

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Fish NOEC mg/l	: No data available			
Crustacea NOEC mg/l	: No data available			
Algae NOEC mg/l	: No data available			
Other plants NOEC mg/l	: No data available			

Terrestrial Toxicity**Birds Oral LD50 mg/kg**

<u>Chemical name</u>	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
MCPA-2-ethylhexyl ester	:			No data available
Bromoxynil octanoate	: 170			

Bees Oral LD50 µg/bee

<u>Chemical name</u>	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
MCPA-2-ethylhexyl ester	:			No data available
Bromoxynil octanoate	: > 119.8			

Abiotic Degradation**Water DT50 days**

<u>Chemical name</u>	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
MCPA-2-ethylhexyl ester	:			No data available
Bromoxynil octanoate	: 0.05			

Soil DT50 days

<u>Chemical name</u>	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
MCPA-2-ethylhexyl ester	:			No data available
Bromoxynil octanoate	: < 1			

Biodegradation

<u>Chemical name</u>	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
MCPA-2-ethylhexyl ester	:			No data available

Bromoxynil octanoate : Not readily biodegradable

Log Pow	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Chemical name			
MCPA-2-ethylhexyl ester	:		No data available
Bromoxynil octanoate	: 5.9		

Bioconcentration factor (BCF)	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Chemical name			
MCPA-2-ethylhexyl ester	:		No data available
Bromoxynil octanoate	: 230		

Adsorption/Desorption	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Chemical name			
MCPA-2-ethylhexyl ester	:		No data available
Bromoxynil octanoate	: 639		KOC

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

14. Transport information

TDG

UN/ID no UN3082
UN proper shipping name Environmentally hazardous substance, liquid, n.o.s. (Bromoxynil octanoate, MCPA-2-ethylhexyl ester)
Hazard class 9
Packing group III
Special Provisions 16, 99
Marine pollutant Yes.
Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bromoxynil octanoate), 9, III
Note Section 1.45.1 of the TDG Regulation provides an exemption from documentation and safety marks for this product when transported by road or railway vehicle in non-bulk containers.

DOT

UN/ID no UN3082
UN proper shipping name Environmentally hazardous substance, liquid, n.o.s. (Bromoxynil octanoate, MCPA-2-ethylhexyl ester)
Hazard class 9
Packing group III
Special Provisions 8, 146, 173, 335, 441, IB3, T4, TP1, TP29
Marine pollutant Yes.
Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bromoxynil octanoate, MCPA-2-ethylhexyl ester), 9, III, Marine pollutant
Emergency Response Guide Number 171

IATA

UN number or ID number UN3082

UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (Bromoxynil octanoate, MCPA-2-ethylhexyl ester)
Transport hazard class(es)	9
Packing group	III
ERG Code	9L
Special Provisions	A97, A158, A197, A215
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bromoxynil octanoate, MCPA-2-ethylhexyl ester), 9, III

IMDG

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (Bromoxynil octanoate, MCPA-2-ethylhexyl ester)
Transport hazard class(es)	9
Packing group	III
EmS-No	F-A, S-F
Special Provisions	274, 335, 375, 969
Marine pollutant	P
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bromoxynil octanoate, MCPA-2-ethylhexyl ester), 9, III, Marine pollutant



15. Regulatory information

The laws, regulations and standards listed below have requirements on the management of this product:

International Regulations

International Inventories

TSCA	Contact supplier for inventory compliance status.
DSL/NDSL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
IECSC	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AICS	Contact supplier for inventory compliance status.

Legend:

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

Registration Number Pest Control Product Reg. No.

Pest Control Product Statement This chemical is a pest control product registered by Health Canada Pest Management Regulatory Agency and is subject to certain labelling requirements under the Pest Control

Products Act. Read the label before using or handling the pest control product. These label requirements differ from the classification criteria and hazard information required for GHS-consistent safety data sheets. The following is the hazard information required on the pest control product label: WARNING, POISON

Difference between SDS and product label

	PCPA Product Label	GHS SDS
Signal word	WARNING, POISON	Danger
Acute toxicity - Oral	NA	Harmful if swallowed
Acute toxicity - Inhalation	NA	Harmful if inhaled
Skin irritation	Avoid contact with skin	None
Eye irritation	Avoid contact with eyes	None
Carcinogenicity	NA	Suspected of causing cancer
Reproductive toxicity	NA	Suspected of damaging fertility or the unborn child
STOT - single exposure	NA	May cause drowsiness or dizziness
Aspiration hazard	NA	May be fatal if swallowed and enters airways

16. Other information

NFPA	Health hazards 2	Flammability 2	Instability 0	Physical and chemical properties -
HMIS	Health hazards 2 *	Flammability 2	Physical hazards 0	Personal protection X

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Key literature references and sources for data used to compile the SDS

U.S. Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 U.S. Environmental Protection Agency
 Acute Exposure Guideline Level(s) (AEGl(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 Japan GHS Classification
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Library of Medicine's PubMed database (NLM PUBMED)
 U.S. National Toxicology Program (NTP)
 New Zealand's Chemical Classification and Information Database (CCID)
 International Organization for Economic Co-operation and Development (OECD) Environment, Health, and Safety Publications
 International Organization for Economic Co-operation and Development (OECD) High Production Volume Chemicals Program
 International Organization for Economic Co-operation and Development (OECD) Screening Information Data Set
 United Nations World Health Organization (WHO)

Revision date 26-Jan-2026

Revision Note No information available.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage,

transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet