

Safety Data Sheet

MARKSMAN

Revision date : 2012/04/13
Version: 2.0

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(30355605/SDS_CPA_CA/EN)

1. Product and Company Identification

Company

BASF Canada Inc.
100 Milverton Drive
Mississauga, ON L5R 4H1, CANADA

24 Hour Emergency Response Information

CANUTEC (reverse charges): (613) 996-6666
BASF HOTLINE: (800) 454-COPE (2673)

PCP # 19349

Synonyms:

dicamba potassium salt ; atrazine

2. Hazards Identification

Emergency overview

CAUTION:
POISON.
KEEP OUT OF REACH OF CHILDREN.
HARMFUL IF SWALLOWED.
HARMFUL IF ABSORBED THROUGH SKIN.
Irritating to skin.
Avoid contact with the skin, eyes and clothing.

State of matter: liquid
Colour: brown
Odour: mild

Potential health effects

Acute toxicity:

Relatively nontoxic after single ingestion. Slightly toxic after short-term skin contact. Relatively nontoxic after short-term inhalation.

Irritation / corrosion:

May cause slight irritation to the skin. May cause moderate but temporary irritation to the eyes.

Sensitization:

Skin sensitizing effects were not observed in animal studies.

Chronic toxicity:

Repeated dose toxicity: Danger of serious damage to health by prolonged exposure.

Potential environmental effects

Aquatic toxicity:

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Acutely toxic for aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Degradation / environmental fate:

Not readily biodegradable (by OECD criteria).

3. Composition / Information on Ingredients

Not WHMIS controlled.

4. First-Aid Measures

General advice:

First aid providers should wear personal protective equipment to prevent exposure. Remove contaminated clothing. Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or physician for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

If inhaled:

Keep patient calm, remove to fresh air. Assist in breathing if necessary. Consult a physician.

If on skin:

Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.

If in eyes:

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Immediate medical attention required.

If swallowed:

Call a poison control center or physician for treatment advice.

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Flash point:

A flash point determination is unnecessary due to the high water content.

Lower explosion limit:

not determined

Upper explosion limit:

not determined

Suitable extinguishing media:

foam, dry powder, carbon dioxide, water spray

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, Hydrogen chloride, nitrogen oxide, nitrogen dioxide, halogenated hydrocarbons, Hydrocarbons,

If product is heated above decomposition temperature, toxic vapours will be released. The substances/groups of substances mentioned can be released if the product is involved in a fire.

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

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6. Accidental release measures

Personal precautions:

Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions:

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

Cleanup:

Dispose of absorbed material in accordance with regulations.
For small amounts: Pick up with absorbent material (e.g. sand, sawdust, general-purpose binder).
For large amounts: Dike spillage. Pump off product.

7. Handling and Storage

Handling

General advice:

No special measures necessary if stored and handled correctly.

Protection against fire and explosion:

The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Sources of ignition should be kept well clear. Avoid extreme heat. Keep away from oxidizable substances. Electrical equipment should conform to national electric code. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

Storage

General advice:

Keep away from heat. Protect against moisture. Protect from direct sunlight. Store protected against freezing.

Storage incompatibility:

General advice: Segregate from foods and animal feeds.

Temperature tolerance

Protect from temperatures above: 40 °C
Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

8. Exposure Controls and Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

Advice on system design:

Ensure adequate ventilation.

Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) TC23C Chemical/Mechanical type filter system to remove a combination of particles, gas and vapours.

Hand protection:

Chemical resistant protective gloves

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Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

Take off immediately all contaminated clothing. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

| | | |
|------------------------------|--------------------------------|--|
| Form: | slurry | |
| Odour: | mild | |
| Odour threshold: | No data available. | |
| Colour: | brown | |
| pH value: | 8.5 - 10 | |
| crystallization temperature: | < -5 °C | |
| Boiling point: | approx. 100 °C | Information applies to the solvent. |
| Vapour pressure: | approx. 23 hPa | (20 °F) Information applies to the solvent. |
| Density: | approx. 1.17 g/cm ³ | (20 °C) |
| Viscosity, dynamic: | 380 mPa.s | (20 °C) |
| Solubility in water: | | miscible |

10. Stability and Reactivity

Conditions to avoid:

Avoid all sources of ignition: heat, sparks, open flame. Avoid prolonged storage. Avoid electro-static discharge. Avoid contamination. Avoid prolonged exposure to extreme heat. Avoid extreme temperatures.

Substances to avoid:

strong bases, strong acids, strong oxidizing agents

Hazardous reactions:

No hazardous reactions when stored and handled according to instructions.

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated., Prolonged thermal loading can result in products of degradation being given off.

Thermal decomposition:

Possible thermal decomposition products:

carbon monoxide, carbon dioxide, Hydrogen chloride, halogenated hydrocarbons, nitrogen dioxide, nitrogen oxide, Hydrocarbons

Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. If product is heated above decomposition temperature hazardous fumes may be released.

Oxidizing properties:

Based on its structural properties the product is not classified as oxidizing.

11. Toxicological information

Acute toxicity

Oral:

Type of value: LD50

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Species: rat (male/female)
Value: 5,897 mg/kg

Inhalation:

Type of value: LC50
Species: rat (male/female)
Value: > 3.38 mg/l
Exposure time: 4 h

Dermal:

Type of value: LD50
Species: rabbit (male/female)
Value: > 2,000 mg/kg

Irritation / corrosion

Skin:

Species: rabbit
Result: non-irritant

Eye:

Species: rabbit
May cause moderate but temporary irritation to the eyes.

Sensitization:

Skin sensitization test
Species: guinea pig
Skin sensitizing effects were not observed in animal studies.

Genetic toxicity

Information on: Dicamba

Results from a number of mutagenicity studies with microorganisms, mammalian cell culture and mammals are available. Taking into account all of the information, there is no indication that the substance is mutagenic.

Information on: atrazine

Results from a number of mutagenicity studies with microorganisms, mammalian cell culture and mammals are available. Taking into account all of the information, there is no indication that the substance is mutagenic.

Carcinogenicity

Information on: Dicamba

In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed.

Information on: atrazine

The substance is not considered to pose a carcinogenic risk at low human exposure levels. In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed.

Reproductive toxicity

Information on: Dicamba

The results of animal studies gave no indication of a fertility impairing effect.

Information on: atrazine

The results of animal studies gave no indication of a fertility impairing effect.

Development:

Information on: Dicamba

Causes developmental effects in animals at high, maternally toxic doses.

Information on: atrazine

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No teratogenic effects reported.

12. Ecological Information

Fish

Acute:
Oncorhynchus mykiss/LC50 (96 h): 38 mg/l

Aquatic invertebrates

Acute:
Daphnia magna/EC50 (48 h): > 1,000 mg/l

Aquatic plants

Information on: dicamba
Toxicity to aquatic plants:
green algae/EC50 (120 h): > 3.7 mg/l
static
swollen duckweed/EC50 (14 d): 3.25 mg/l
static
swollen duckweed/No observed effect concentration (14 d): 0.2 mg/l

Information on: atrazine
Toxicity to aquatic plants:
swollen duckweed: 0.170 mg/l
algae/EC50: 49 ppb

Other adverse effects:

Do not discharge product into the environment without control.

13. Disposal considerations

Waste disposal of substance:

See product label for disposal and recycling instructions.

Container disposal:

Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

14. Transport Information

Land transport

TDG

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Hazard class: 9
Packing group: III

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ID number: UN 3082
Hazard label: 9, EHSM
Marine pollutant: YES
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(contains DICAMBA)

Air transport

IATA/ICAO

Hazard class: 9
Packing group: III
ID number: UN 3082
Hazard label: 9, EHSM
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(contains DICAMBA)

15. Regulatory Information

Federal Regulations

Registration status:

Chemical DSL, CA released; restriction on quantity / not listed

Crop Protection DSL, CA released / exempt

WHMIS does not apply to this product.

THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

16. Other Information

Recommended use: herbicide

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

MSDS Prepared by:

BASF NA Product Regulations
msds@basf.com
BASF HOTLINE (800) 454 – COPE (2673)
MSDS Prepared on: 2012/04/13

END OF DATA SHEET