

Safety Data Sheet

ARSENAL

Revision date : 2011/11/22
Version: 1.0

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(30256050/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)

Molecular formula:	C(13) H(15) N(3) O(3).C(3) H(9) N
Chemical family:	imidazole derivative
23713	
Synonyms:	Isopropylamine salt of imazapyr

2. Hazards Identification

Emergency overview

CAUTION:
POISON.
Eye irritant.
KEEP OUT OF REACH OF CHILDREN.
Avoid inhalation of mists/vapours.
Avoid contact with the skin, eyes and clothing.
Wash thoroughly after handling.

State of matter: liquid
Colour: blue, clear
Odour: faint odour, ammonia-like

Potential health effects

Acute toxicity:
Harmful if swallowed.

Irritation / corrosion:
Irritating to eyes and respiratory system. Prolonged contact with the product can result in skin irritation.

3. Composition / Information on Ingredients

Not WHMIS controlled.

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4. First-Aid Measures

If inhaled:

Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary.

If on skin:

After contact with skin, wash immediately with plenty of water and soap. If irritation develops, seek medical attention.

If in eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

If swallowed:

Rinse mouth immediately and then drink plenty of water, induce vomiting, seek medical attention. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

5. Fire-Fighting Measures

Flash point:

Non-flammable.

Flammability:

does not ignite

Suitable extinguishing media:

foam, dry powder, carbon dioxide, water spray

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide, 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.

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:

Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

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7. Handling and Storage

Handling

General advice:

Ensure adequate ventilation. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect contents from the effects of light. Protect against heat. Protect from air. Handle and open container with care. Avoid aerosol formation. Avoid dust formation. Provide means for controlling leaks and spills. Do not return residues to the storage containers. Follow label warnings even after container is emptied. The substance/ product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Storage

General advice:

Keep away from heat. Protect from direct sunlight. Keep in a cool, well-ventilated place.

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:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

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. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves

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:

Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Form:	liquid
Odour:	faint odour, ammonia-like
Odour threshold:	No data available.
Colour:	blue, clear
pH value:	6.6 - 7.2

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Freezing point:	approx. 0 °C	(1,013.3 hPa)	Information applies to the solvent.
Boiling point:	approx. 100 °C	(1,013.3 hPa)	Information applies to the solvent.
Density:	1.04 - 1.07 g/cm ³	(20 °C)	
Vapour density:			not determined
Viscosity, dynamic:	approx. > 1 mPa.s	(25 °C)	
Solubility in water:			soluble
Molar mass:	320.4 g/mol		

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:

oxidizing agents, reducing agents

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

Corrosion to metals:

mild steel brass

Oxidizing properties:

not fire-propagating

11. Toxicological information

Acute toxicity

Oral:

Type of value: LD50
Species: rat
Value: > 5,000 mg/kg

Inhalation:

Type of value: LC50
Species: rat
Value: > 1.3 mg/l
Exposure time: 4 h

Dermal:

Type of value: LD50
Species: rabbit
Value: > 2,148 mg/kg

Irritation / corrosion

Skin:

Species: rabbit
Result: Slightly irritating.

Species: rabbit
Result: mildly irritating
Method: Primary skin irritation test

Eye:

Species: rabbit

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Result: Irritant.

Species: rabbit
Result: Irritating.

Sensitization:

modified Buehler test

Species: guinea pig

Result: Skin sensitizing effects were not observed in animal studies.

Genetic toxicity

Information on: imazapyr

No mutagenic effect was found in various tests with microorganisms and mammals.

Carcinogenicity

Information on: imazapyr

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: imazapyr

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

Development:

Information on: imazapyr

No indications of a developmental toxic / teratogenic effect were seen in animal studies.

12. Ecological Information

Fish

Acute:

Salmo gairdneri, syn. O. mykiss/LC50 (96 h): 110 mg/l

Aquatic invertebrates

Acute:

Daphnia magna/LC50 (48 h): 350 mg/l

Aquatic plants

Toxicity to aquatic plants:

Common duckweed/EC50: 0.0216 mg/l

green algae/EC50: 14.1 mg/l

Not readily biodegradable (by OECD criteria).

Other adverse effects:

The ecological data given are those of the active ingredient. Do not discharge product into the environment without control.

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13. Disposal considerations

Waste disposal of substance:

See product label for disposal and recycling instructions.

14. Transport Information

Land transport

TDG

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Hazard class: 9
Packing group: III
ID number: UN 3082
Hazard label: 9, EHSM
Marine pollutant: YES
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(contains IMAZAPYR 23%)

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 IMAZAPYR 23%)

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

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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:

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MSDS Prepared on: 2011/11/22

END OF DATA SHEET