

# Safety Data Sheet

## ARES

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(30553943/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: C13 H15 N3 O3 ; C15 H19 N3 O4  
PCP # 30188  
Synonyms: imazamox and imazapyr

### 2. Hazards Identification

Emergency overview

CAUTION:  
POISON.  
KEEP OUT OF REACH OF CHILDREN.  
Harmful if swallowed.  
Irritating to eyes.  
Irritating to skin.  
Do not get in eyes, on skin, or on clothing.  
Do not breathe gas/vapour/fume/spray.  
Wash thoroughly after handling.

State of matter: liquid  
Colour: yellow to amber  
Odour: faint odour, aliphatic

Potential health effects**Acute toxicity:**

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

**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:**

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**Carcinogenicity:** The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies gave no indication of a carcinogenic effect.

**Medical conditions aggravated by overexposure:**

Individuals with pre-existing diseases of the respiratory system, skin or eyes may have increased susceptibility to excessive exposures.

**Potential environmental effects**

**Aquatic toxicity:**

Acutely harmful for fish. Acutely harmful for aquatic invertebrates. Acutely harmful for aquatic plants.

**Terrestrial toxicity:**

With high probability not acutely harmful to terrestrial organisms.

**Degradation / environmental fate:**

Not readily biodegradable (by OECD criteria).

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### 3. Composition / Information on Ingredients

Not WHMIS controlled.

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### 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:**

Remove the affected individual into fresh air and keep the person calm.

**If on skin:**

Rinse skin immediately with plenty of water for 15 - 20 minutes.

**If in eyes:**

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing.

**If swallowed:**

Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Do not induce vomiting. Have person sip a glass of water if able to swallow.

**Note to physician**

Antidote: No known specific antidote.  
Treatment: Treat symptomatically.

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### 5. Fire-Fighting Measures

Flash point:	> 115 °C	(DIN EN ISO 13736, closed cup) No flash point - Measurement made up to the indicated temperature, pilot light extinguishes.
Lower explosion limit:		not determined
Upper explosion limit:		not determined
Flammability:	does not ignite	
Self-ignition temperature:	398 °C	(Directive 92/69/EEC, A.15)

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**Suitable extinguishing media:**

foam, dry powder, carbon dioxide, water spray

**Hazards during fire-fighting:**

carbon monoxide, carbon dioxide, nitrogen dioxide, nitrogen oxide, Hydrocarbons,  
If product is heated above decomposition temperature, toxic vapours will be released.

carbon monoxide, ammonia, nitrogen oxides

The substances/groups of substances mentioned can be released in case of 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:**

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:**

No special measures necessary if stored and handled correctly.

**Protection against fire and explosion:**

No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

**Storage**

**General advice:**

Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination. The authority permits and storage regulations must be observed.

**Storage incompatibility:**

General advice: Segregate from foods and animal feeds. Segregate from oxidants. Segregate from reducing agents.

**Temperature tolerance**

Protect from temperatures below: -10 °C

The product can crystallize below the limit temperature.

Protect from temperatures above: 40 °C

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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:**

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) organic vapour/particulate respirator. 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, Protective glove selection must be based on the user's assessment of the workplace hazards.

##### **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. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

### 9. Physical and Chemical Properties

Form:	liquid, slightly viscous	
Odour:	faint odour, aliphatic	
Odour threshold:	No data available.	
Colour:	yellow to amber	
pH value:	6 - 7	( 20 - 54 °C) (measured with the undiluted substance)
solidification temperature:	-14 °C	( 1,013.3 hPa)
Boiling point:	approx. 100 °C	( 1,013.3 hPa) Information applies to the solvent.
Vapour pressure:	approx. 23.3 hPa	( 20 °C) Information applies to the solvent.
Density:	approx. 1.07 g/cm <sup>3</sup>	( 20 °C)
Vapour density:		not determined
Viscosity, kinematic:	77 mm <sup>2</sup> /s	( 20 °C)
Solubility in water:		soluble

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### 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:**

The product is chemically stable.

Hazardous polymerization will not occur. No hazardous reactions if stored and handled as prescribed/indicated.

**Decomposition products:**

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

**Thermal decomposition:**

Possible thermal decomposition products:

carbon monoxide, carbon dioxide, nitrogen dioxide, nitrogen oxide, Hydrocarbons

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

**Corrosion to metals:**

brass mild steel

**Oxidizing properties:**

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

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### 11. Toxicological information

**Acute toxicity****Oral:**

Type of value: LD50

Species: rat (male/female)

Value: > 5,000 mg/kg (OECD Guideline 401)

**Inhalation:**

Type of value: LC50

Species: rat (male/female)

Value: > 6.18 mg/l (OECD Guideline 403)

Exposure time: 4 h

**Dermal:**

Type of value: LD50

Species: rabbit (male/female)

Value: > 5,000 mg/kg (OECD Guideline 402)

**Irritation / corrosion****Skin:**

Species: rabbit

Result: non-irritant

**Eye:**

Species: rabbit

Result: Slightly irritating.

Method: OECD Guideline 405

**Sensitization:**

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Buehler test  
Species: guinea pig  
Result: Non-sensitizing.  
Method: OECD Guideline 406

### Genetic toxicity

*Information on: imazapyr*  
*No mutagenic effect was found in various tests with microorganisms and mammals.*

*Information on: imazamox*  
*No mutagenic effect was found in various tests with microorganisms and mammals.*

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### 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.*

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

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### Reproductive toxicity

*Information on: imazapyr*  
*The results of animal studies gave no indication of a fertility impairing effect.*

*Information on: imazamox*  
*The results of animal studies gave no indication of a fertility impairing effect.*

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### Development:

*Information on: imazapyr*  
*No indications of a developmental toxic / teratogenic effect were seen in animal studies.*

*Information on: imazamox*  
*No indications of a developmental toxic / teratogenic effect were seen in animal studies.*

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### Other Information:

Misuse can be harmful to health.

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## 12. Ecological Information

### Fish

Acute:  
EPA 72-1 Flow through.  
Oncorhynchus mykiss/LC50 (96 h): > 83.2 mg/l

### Aquatic invertebrates

Acute:  
OPP 72-2 (EPA-guideline) static  
Daphnia magna/EC50 (48 h): > 86.6 mg/l

### Aquatic plants

Toxicity to aquatic plants:  
OECD Guideline 201 static

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green algae/EC50 (72 h): > 90.6 mg/l

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### 13. Disposal considerations

**Waste disposal of substance:**

Must be sent to a suitable incineration plant, observing local regulations.

**Container disposal:**

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

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### 14. Transport Information

**Land transport**

TDG

Not classified as a dangerous good under transport regulations

**Sea transport**

IMDG

Not classified as a dangerous good under transport regulations

**Air transport**

IATA/ICAO

Not classified as a dangerous good under transport regulations

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### 15. Regulatory Information

**Federal Regulations**

**Registration status:**

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

Crop Protection DSL, CA released / exempt

**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.**

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### 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

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products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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**MSDS Prepared by:**

BASF NA Product Regulations

msds@basf.com

BASF HOTLINE (800) 454 – COPE (2673)

MSDS Prepared on: 2012/02/15

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