

# Safety Data Sheet

## HEADLINE EC FUNGICIDE

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### 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(19)H(18)N(3)O(4)CL  
PCP # 27322  
Synonyms: pyraclostrobin

### 2. Hazards Identification

#### Emergency overview

DANGER:  
POISON.  
KEEP OUT OF REACH OF CHILDREN.  
May be fatal if swallowed.  
Severely irritating to the eyes.  
Severely irritating to the skin.  
Do not get in eyes, on skin, or on clothing.  
Wash thoroughly after handling.

State of matter: liquid  
Colour: dark yellow  
Odour: aromatic

#### Potential health effects

##### **Acute toxicity:**

Ingestion may cause death unless treated promptly. Harmful by inhalation and in contact with skin.

##### **Irritation / corrosion:**

Eye contact causes irritation. Skin contact causes irritation. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

##### **Assessment other acute effects:**

Causes temporary irritation of the respiratory tract.  
Respiratory system

##### **Sensitization:**

Skin sensitizing effects were not observed in animal studies.

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### Chronic toxicity:

**Carcinogenicity:** The product has not been tested. The statement has been derived from the properties of the individual components.

**Repeated dose toxicity:** The product has not been tested. The statement has been derived from the properties of the individual components.

**Reproductive toxicity:** The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

**Teratogenicity:** The product has not been tested. The statement has been derived from the properties of the individual components. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

**Genotoxicity:** The product has not been tested. The statement has been derived from the properties of the individual components.

### Medical conditions aggravated by overexposure:

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

### Signs and symptoms of overexposure:

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not known.

Vomiting may cause aspiration pneumonia due to the ingredients. Because of the increased risk of chemical pneumonia or pulmonary edema caused by aspiration of the hydrocarbon solvent, vomiting should be induced only under professional supervision.

### Potential environmental effects

#### Aquatic toxicity:

Very toxic (acute effect) to aquatic organisms.

#### Terrestrial toxicity:

With high probability not acutely harmful to terrestrial organisms.

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## 3. Composition / Information on Ingredients

Not WHMIS controlled.

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## 4. First-Aid Measures

### General advice:

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

### If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

### If on skin:

Immediately wash thoroughly with soap and water, seek medical attention.

### If in eyes:

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

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**If swallowed:**

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention. Do not induce vomiting due to aspiration hazard.

**Note to physician**

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

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## 5. Fire-Fighting Measures

Flash point:	approx. 98 °C	(Directive 92/69/EEC, A.9)
Autoignition:	approx. 475 °C	(Directive 92/69/EEC, A.15)
Lower explosion limit:	approx. 0.7 %(V)	Information applies to the solvent.
Upper explosion limit:	approx. 5.6 %(V)	Information applies to the solvent.
Flammability:	Product is combustible.	

**Suitable extinguishing media:**

water spray, foam, dry powder, carbon dioxide

**Unsuitable extinguishing media for safety reasons:**

water jet

**Hazards during fire-fighting:**

carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide, Hydrogen chloride, 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:**

Wear self-contained breathing apparatus and chemical-protective clothing.

**Further information:**

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire.

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## 6. Accidental release measures

**Personal precautions:**

Do not breathe vapour/spray. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

**Environmental precautions:**

Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

**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. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. Remove contaminated clothing and protective equipment before entering eating areas.

##### **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 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.

##### **Temperature tolerance**

Protect from temperatures below: 0 °C

Changes in the properties of the product may occur if substance/product is stored below indicated temperature for extended periods of time.

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.

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### 8. Exposure Controls and Personal Protection

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

#### Components with occupational exposure limits

naphthalene	OSHA PEL	PEL 10 ppm 50 mg/m <sup>3</sup> ; STEL value 15 ppm 75 mg/m <sup>3</sup> ; TWA value 10 ppm 50 mg/m <sup>3</sup> ;
	ACGIH TLV	TWA value 10 ppm ; STEL value 15 ppm ; Skin Designation ; The substance can be absorbed through the skin.
Naphthalene, 1-methyl-	ACGIH TLV	TWA value 0.5 ppm ; Skin Designation ; The substance can be absorbed through the skin.
Naphthalene, 2-methyl-	ACGIH TLV	TWA value 0.5 ppm ; Skin Designation ; The substance can be absorbed through the skin.

#### 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.

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### 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	
Odour:	aromatic	
Odour threshold:	No data available.	
Colour:	dark yellow	
pH value:	approx. 5 - 7	( 1 %(m), approx. 20 °C)
Melting point:	approx. -8 °C	Information applies to the solvent.
Boiling point:	approx. 220 - 293 °C	Information applies to the solvent.
Vapour pressure:	approx. 0.05 hPa	(approx. 20 °C) Information applies to the solvent.
Density:	approx. 1.06 g/cm3	(approx. 20 °C) (OECD Guideline 109)
Vapour density:		not applicable
Partitioning coefficient n-octanol/water (log Pow):		not applicable
Viscosity, kinematic:	approx. 8.5 mm2/s	(approx. 40 °C) (OECD 114)
Solubility in water:		emulsifiable, insoluble
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.	

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

## 10. Stability and Reactivity

### Conditions to avoid:

Avoid sources of ignition. Avoid electro-static discharge. Avoid direct sunlight.

### Substances to avoid:

strong bases, strong acids, strong oxidizing agents

### Hazardous reactions:

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.

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### Thermal decomposition:

Possible thermal decomposition products:

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

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

### Corrosion to metals:

Corrosive effects to metal are not anticipated.

### Oxidizing properties:

Not an oxidizer.

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## 11. Toxicological information

### Acute toxicity

#### Oral:

Type of value: LD50

Species: rat (female)

Value: 260 mg/kg (OECD Guideline 423)

#### Dermal:

Type of value: LD50

Species: rat (male/female)

Value: > 4,000 mg/kg (OECD Guideline 402)

No mortality was observed.

### Irritation / corrosion

#### Skin:

Species: rabbit

Result: Irritant.

Method: OECD Guideline 404

#### Eye:

Species: rabbit

Result: Irritant.

Method: OECD Guideline 405

#### Sensitization:

Buehler test

Species: guinea pig

Result: Non-sensitizing.

Method: OECD Guideline 406

### Repeated dose toxicity

*Information on: Pyraclostrobin*

*Assessment of repeated dose toxicity:*

*After repeated exposure the prominent effect is local irritation. The substance may cause damage to the olfactory epithelium after repeated inhalation.*

*Information on: 2-ethylhexan-1-ol*

*Assessment of repeated dose toxicity:*

*Repeated exposure to high doses of the substance causes reversible liver changes in rodents. According to present knowledge, these effects do not occur in man.*

*May cause liver and kidney damage.*

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### Genetic toxicity

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*Information on: naphthalene*

*The substance was not mutagenic in bacteria. The substance was mutagenic in a mammalian cell culture test system. The substance was not mutagenic in a test with mammals. Literature data.*

### **Carcinogenicity**

*Information on: Pyraclostrobin*

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

### **Other Information:**

Misuse can be harmful to health.

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## 12. Ecological Information

### **Fish**

Acute:

Directive 84/449/EEC, C.1 static

Oncorhynchus mykiss/LC50 (96 h): 0.0229 mg/l

### **Aquatic invertebrates**

Acute:

OECD Guideline 202, part 1 static

Daphnia magna/EC50 (48 h): 0.046 mg/l

### **Aquatic plants**

Toxicity to aquatic plants:

OECD Guideline 201 green algae/EC50 (72 h): 0.69 mg/l

### **Environmental mobility:**

*Information on: Pyraclostrobin*

*Assessment transport between environmental compartments:*

*Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.*

### **Other adverse effects:**

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.

### **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

Hazard class: 6.1  
Packing group: III  
ID number: UN 2902  
Hazard label: 6.1, EHSM  
Proper shipping name: PESTICIDE, LIQUID, TOXIC, N.O.S. (contains SOLVENT NAPHTHA, PYRACLOSTROBIN)

#### Sea transport

IMDG

Hazard class: 6.1  
Packing group: III  
ID number: UN 2902  
Hazard label: 6.1, EHSM  
Marine pollutant: YES  
Proper shipping name: PESTICIDE, LIQUID, TOXIC, N.O.S. (contains SOLVENT NAPHTHA, PYRACLOSTROBIN)

#### Air transport

IATA/ICAO

Hazard class: 6.1  
Packing group: III  
ID number: UN 2902  
Hazard label: 6.1  
Proper shipping name: PESTICIDE, LIQUID, TOXIC, N.O.S. (contains SOLVENT NAPHTHA, PYRACLOSTROBIN)

### 15. Regulatory Information

#### Federal Regulations

##### Registration status:

Crop Protection DSL, CA released / exempt

Chemical DSL, CA blocked / not listed

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: fungicide

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



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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.

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**SDS Prepared by:**

BASF NA Product Regulations

BASF HOTLINE (800) 454 – COPE (2673)

SDS Prepared on: 2014/10/03

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