

# Safety data sheet

## HEADLINE EC FUNGICIDE

Revision date : 2008/12/02  
Version: 1.1

Page: 1/6  
(30256998/MDS\_CPA\_CA/EN)

### 1. Substance/preparation and company identification

Company

BASF CANADA  
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)

---

Substance number:	000000062270
Molecular formula:	C <sub>19</sub> H <sub>18</sub> N <sub>3</sub> O <sub>4</sub> Cl
Molecular weight:	387.3 g/mol
Chemical family:	crop protection product, fungicide, emulsion concentrate (EC)
PCP #27322	
Synonyms:	pyraclostrobin

---

### 2. Hazardous ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Hazardous ingredients</u>
91-20-3	5.0 - 10.0 %	naphthalene
64742-94-5	30.0 - 60.0 %	solvent naphtha
91-57-6	10.0 - 30.0 %	Naphthalene, 2-methyl-
90-12-0	5.0 - 10.0 %	Naphthalene, 1-methyl-

---

### 3. Hazard identification

Emergency overview

WARNING: POISON. DANGER:  
CAUSES SKIN IRRITATION.  
Causes eye irritation.  
KEEP OUT OF REACH OF CHILDREN.  
Avoid contact with the skin, eyes and clothing.

Potential health effects

**See Product Label for additional precautionary statements.**

**Acute toxicity:**

Harmful if swallowed.

**Irritation:**

Irritating to eyes, respiratory system and skin.

# Safety data sheet

## HEADLINE EC FUNGICIDE

Revision date : 2008/12/02  
Version: 1.1

Page: 2/6  
(30256998/MDS\_CPA\_CA/EN)

---

### 4. First-aid measures

**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. Remove contaminated clothing. If irritation develops, seek medical attention.

**If in eyes:**

Hold eyelids open to facilitate rinsing. Flush with copious amounts of water for at least 15 minutes. If symptoms persist, seek medical advice.

**If swallowed:**

Rinse mouth and then drink plenty of water. Do not induce vomiting. Immediate medical attention required.

**Note to physician**

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

---

### 5. Fire-fighting measures

Flash point: 98 °C (DIN EN 22719; ISO 2719)

**Suitable extinguishing media:**

foam, dry extinguishing media, carbon dioxide, water spray

**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:**

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.

---

# Safety data sheet

## HEADLINE EC FUNGICIDE

Revision date : 2008/12/02  
Version: 1.1

Page: 3/6  
(30256998/MDS\_CPA\_CA/EN)

### 7. Handling and storage

#### Handling

##### **General advice:**

No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas.

#### Storage

##### **Storage incompatibility:**

General: Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

### 8. Exposure controls and personal protection

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

#### Components with workplace control parameters

naphthalene	OSHA ACGIH	PEL 10 ppm 50 mg/m3 ; TWA value 10 ppm ; STEL value 15 ppm ; Skin Designation ;
Naphthalene, 2-methyl-	ACGIH	TWA value 0.5 ppm ; Skin Designation ;
Naphthalene, 1-methyl-	ACGIH	TWA value 0.5 ppm ; Skin Designation ;

#### **Advice on system design:**

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

#### Personal protective equipment

#### **RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:**

##### **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, Suitable materials, rubber, plastic

##### **Eye protection:**

Tightly fitting safety goggles (chemical goggles).

##### **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:**

Wash soiled clothing immediately.

# Safety data sheet

## HEADLINE EC FUNGICIDE

Revision date : 2008/12/02  
Version: 1.1

Page: 4/6  
(30256998/MDS\_CPA\_CA/EN)

### 9. Physical and chemical properties

Form:	liquid	
Odour:	faint odour, aromatic	
Odour threshold:	No data available.	
Colour:	dark yellow	
pH value:	approx. 6.2 6.4	( 10 g/l, 20 °C)
crystal separation:	approx. 0 °C	
onset of boiling:	approx. 180 °C	Information applies to the solvent.
Vapour pressure:	0.053 hPa	
Density:	1.055 g/cm <sup>3</sup>	( 20 °C)
Bulk density:		not applicable
Partitioning coefficient n-octanol/water (log Pow):		not applicable
Viscosity, dynamic:	8.8 mPa.s approx. 17.5 mPa.s	( 40 °C) ( 20 °C)
Solubility in water:		emulsifiable

### 10. Stability and reactivity

#### Conditions to avoid:

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

#### Substances to avoid:

strong oxidizing agents

#### 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.

#### Corrosion to metals:

Corrosive effects to metal are not anticipated.

#### Oxidizing properties:

Not an oxidizer.

### 11. Toxicological information

#### Acute toxicity

##### Oral:

LD50/rat: approx. 500 mg/kg

LD50/rat/female: 200 - 500 mg/kg

LD50/rat/male: > 500 mg/kg

Moderately toxic.

##### Inhalation:

LC50/rat: 3.51 mg/l / 4 h

##### Dermal:

LD50/rat: > 4,000 mg/kg

##### Sensitization:

modified Buehler test/guinea pig: Skin sensitizing effects were not observed in animal studies.

# Safety data sheet

## HEADLINE EC FUNGICIDE

Revision date : 2008/12/02  
Version: 1.1

Page: 5/6  
(30256998/MDS\_CPA\_CA/EN)

### Genetic toxicity:

Information on: Pyraclostrobin

No mutagenic effect was found in various tests with microorganisms and mammalian cell culture.

-----

### 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.

-----

### Reproductive toxicity:

Information on: Pyraclostrobin

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

-----

### Developmental toxicity/teratogenicity:

Information on: Pyraclostrobin

-----

---

## 12. Ecological information

### Environmental fate and transport

#### Biodegradation:

Evaluation: Not readily biodegradable (by OECD criteria).

### Environmental toxicity

#### Acute and prolonged toxicity to fish:

Rainbow trout/LC50 (96 h): 0.02 mg/l

Oryzias latipes/LC50 (96 h): > 0.058 - < 0.1 mg/l

#### Acute toxicity to aquatic invertebrates:

Daphnia magna/EC50 (48 h): 0.0649 mg/l

#### Toxicity to aquatic plants:

green algae/EC50 (72 h): 3.32 mg/l

---

## 13. Disposal considerations

### Waste disposal of substance:

See product label for disposal and recycling instructions.

---

## 14. Transport information

Reference Bill of Lading

---

## 15. Regulatory information

### Federal Regulations

#### Registration status:

DSL, CA

released / exempt

# Safety data sheet

## HEADLINE EC FUNGICIDE

Revision date : 2008/12/02  
Version: 1.1

Page: 6/6  
(30256998/MDS\_CPA\_CA/EN)

---

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

**Refer to product label for EPA registration number.**

---

**Local contact information**  
BASF Canada Product Safety  
prod\_reg@basf.com

END OF DATA SHEET