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: C19 H18 N3 O4 Cl
Chemical family: crop protection product, fungicide, Emulsifiable concentrate (EC)
PCP # 27322
Synonyms: pyraclostrobin

2. Hazards Identification

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

State of matter: liquid
Colour: dark yellow
Odour: faint odour, aromatic

Potential health effects

Acute toxicity:
Moderately toxic after single ingestion. Relatively nontoxic after short-term inhalation. Slightly toxic after short-term skin contact.

Irritation / corrosion:
Causes substantial but temporary eye injury. May cause moderate irritation to the skin.

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

Potential environmental effects

Aquatic toxicity:
Very toxic (acute effect) to aquatic organisms.
Terrestrial toxicity:
With high probability not acutely harmful to terrestrial organisms.

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Content (W/W)</th>
<th>Hazardous ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td>175013-18-0</td>
<td>&gt;= 15.0 - &lt;= 40.0 %</td>
<td>Pyraclostrobin</td>
</tr>
<tr>
<td>91-20-3</td>
<td>&gt;= 5.0 - &lt;= 10.0 %</td>
<td>naphthalene</td>
</tr>
<tr>
<td>104-76-7</td>
<td>&gt;= 1.0 - &lt;= 5.0 %</td>
<td>2-ethylhexan-1-ol</td>
</tr>
</tbody>
</table>

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

5. Fire-Fighting Measures

Flash point: 98 °C (DIN EN 22719; ISO 2719)
Autoignition: 475 °C (Directive 92/69/EEC, A.15)
Lower explosion limit: not determined
Upper explosion limit: not determined
Flammability: not determined

Suitable extinguishing media:
water spray, foam, dry powder, carbon dioxide

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.
Further information:
In case of fire and/or explosion do not breathe fumes. 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.

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.

7. Handling and Storage

Handling
General advice:
No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work 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 incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

Temperature tolerance
Protect from temperatures below: 0 °C
The product can crystallize below the limit temperature.
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.
Components with workplace control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>OSHA PEL</th>
<th>ACGIH TWA value</th>
<th>STEL value</th>
<th>Skin Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>naphthalene</td>
<td>10 ppm</td>
<td>10 ppm</td>
<td>15 ppm</td>
<td>The substance can be absorbed through the skin.</td>
</tr>
<tr>
<td></td>
<td>50 mg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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, 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:
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. Wash soiled clothing immediately.

9. Physical and Chemical Properties

Form: liquid
Odour: faint odour, aromatic
Odour threshold: No data available.
Colour: dark yellow
pH value: 6.4
Crystal separation: approx. 0 °C
Onset of boiling: approx. 180 °C
Vapour pressure: 0.053 hPa
Density: approx. 1.06 g/cm³ (20 °C)
Vapour density: not determined
Viscosity, dynamic: 8.8 mPa.s (40 °C) 17.5 mPa.s (20 °C)
Solubility in water: emulsifiable
Molar mass: 387.3 g/mol

10. Stability and Reactivity

Conditions to avoid:
Avoid sources of ignition. Avoid electro-static discharge. Avoid direct sunlight.
Substances to avoid:
Nitric Acid, Sulfuric acid, 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.
Prolonged thermal loading can result in products of degradation being given off.
No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:
not determined

Corrosion to metals:
Corrosive effects to metal are not anticipated.

Oxidizing properties:
not fire-propagating

11. Toxicological information

Acute toxicity

Oral:
Type of value: LD50
Species: rat
Value: approx. 500 mg/kg

Type of value: LD50
Species: rat (female)
Value: 200 - 500 mg/kg

Type of value: LD50
Species: rat (male)
Value: > 500 mg/kg
Moderately toxic.

Inhalation:
Type of value: LC50
Species: rat
Value: 3.51 mg/l
Exposure time: 4 h

Dermal:
Type of value: LD50
Species: rat
Value: > 4,000 mg/kg

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

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.

Development:

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

Other Information:

Misuse can be harmful to health.

12. Ecological Information

Fish
Acute:
Oncorhynchus mykiss/LC50 (96 h): 0.02 mg/l
Oryzias latipes/LC50 (96 h): > 0.058 - < 0.1 mg/l

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

Aquatic plants
Toxicity to aquatic plants:
green algae/EC50 (72 h): 3.32 mg/l

Degradability / Persistence
Biological / Abiological Degradation
Evaluation: Not readily biodegradable (by OECD criteria).

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 |
| ID number: | UN 3082 |
| Hazard label: | 9, EHSM |
| Marine pollutant: | YES |
| Proper shipping name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains SOLVENT NAPHTHA, PYRACLOSTROBIN 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 SOLVENT NAPHTHA, PYRACLOSTROBIN 23%) |

15. Regulatory Information

**Federal Regulations**

**Registration status:**
Crop Protection DSL, CA released / exempt
Chemical DSL, CA released; restriction on quantity / 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 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.