1. Identification

Product identifier used on the label

HEADLINE AMP FUNGICIDE

Recommended use of the chemical and restriction on use
Recommended use*: fungicide

* The “Recommended use” identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company: BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Contact address: BASF Canada Inc.
100 Milverton Drive
Mississauga, ON L5R 4H1
CANADA
Telephone: +1 289 360-1300

Emergency telephone number

CANUTEC (reverse charges): (613) 996-6666
BASF HOTLINE: (800) 454-COPE (2673)

Other means of identification
PCP # 32189
Synonyms: Pyraclostrobin

2. Hazards Identification

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

Hazards not otherwise classified

Labeling of special preparations (GHS):
The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 7 % dermal
The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 10 % Inhalation - vapour
The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 10 % Inhalation - mist
According to Controlled Products Regulations (CPR) (SOR/88-66)

Emergency overview

WARNING: POISON.
Skin Irritant
KEEP OUT OF REACH OF CHILDREN.
May be fatal if swallowed.
Harmful if inhaled.
Causes eye irritation.
Causes skin irritation.
Avoid inhalation of dusts/mists/vapours.
Do not get in eyes, on skin, or on clothing.
Wash thoroughly after handling.

3. Composition / Information on Ingredients

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Weight %</th>
<th>Chemical name</th>
</tr>
</thead>
<tbody>
<tr>
<td>175013-18-0</td>
<td>13.64%</td>
<td>Pyraclostrobin</td>
</tr>
<tr>
<td>125116-23-6</td>
<td>5.14%</td>
<td>Metconazole</td>
</tr>
</tbody>
</table>

According to Controlled Products Regulations (CPR) (SOR/88-66)

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Weight %</th>
<th>Chemical name</th>
</tr>
</thead>
<tbody>
<tr>
<td>175013-18-0</td>
<td>&lt; 15.0%</td>
<td>pyraclostrobin</td>
</tr>
<tr>
<td>125116-23-6</td>
<td>&lt; 6.0%</td>
<td>Metconazole</td>
</tr>
</tbody>
</table>

4. First-Aid Measures

Description of first aid measures

General advice:
Remove contaminated clothing.

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

If on skin:
Wash thoroughly with soap and water.

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

If swallowed:
Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed
Symptoms: 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.

**Indication of any immediate medical attention and special treatment needed**

**Note to physician**

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

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### 5. Fire-Fighting Measures

**Extinguishing media**

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

Unsuitable extinguishing media for safety reasons:
- water jet

**Special hazards arising from the substance or mixture**

Hazards during fire-fighting:
- carbon monoxide, carbon dioxide, nitrogen oxides, chlorine compounds

The substances/groups of substances mentioned can be released in case of fire.

**Advice for fire-fighters**

Protective equipment for fire-fighting:
- Wear self-contained breathing apparatus and chemical-protective clothing.

**Further information:**
In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. 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.

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### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

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

**Environmental precautions**

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

**Methods and material for containment and cleaning up**

For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).

For large amounts: Dike spillage. Pump off product.

Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Cleaning operations should be carried out only while wearing breathing apparatus.
7. Handling and Storage

**Precautions for safe handling**
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.

**Protection against fire and explosion:**
No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

**Conditions for safe storage, including any incompatibilities**
Segregate from foods and animal feeds.

Further information on storage conditions: Keep away from heat. Protect from direct sunlight.

8. Exposure Controls/Personal Protection

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

**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. 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:**
Handle in accordance with good industrial hygiene and safety practice. Avoid contact with the skin, eyes and clothing. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

**Form:** suspension
**Odour:** odourless
**Odour threshold:** not applicable, odour not perceivable
**Colour:** white
pH value: approx. 4 - 6 
(1 %(m), 25 °C)

Melting point: approx. 0 °C 
Information applies to the solvent.

Boiling point: approx. 100 °C 
Information applies to the solvent.

Flash point: Non-flammable.

Flammability: Based on the structure or composition there is no indication of flammability

Lower explosion limit: As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.

Upper explosion limit: As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.

Autoignition: Based on the water content the product does not ignite.

Density: approx. 1.06 g/cm³ 
(20 °C)

Vapour density: not applicable

Partitioning coefficient n-octanol/water (log Pow): not applicable

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Viscosity, dynamic: approx. 370.9 mPa.s 
(approx. 20 °C)

Solubility in water: dispersible

Evaporation rate: not applicable

Other Information: If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and Reactivity

Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:
not fire-propagating

Chemical stability
The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions
No hazardous reactions if stored and handled as prescribed/indicated.

Conditions to avoid

Incompatible materials
strong bases, strong acids, strong oxidizing agents

Hazardous decomposition products

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

Thermal decomposition:
No decomposition if stored and handled as prescribed/indicated.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity
Assessment of acute toxicity: Of moderate toxicity after short-term inhalation. Of moderate toxicity after single ingestion. Virtually nontoxic after a single skin contact. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Oral
Type of value: LD50
Species: rat (female)
Value: 500 mg/kg (OECD Guideline 423)

Inhalation
Type of value: LC50
Species: rat (male/female)
Value: 2.73 mg/l (OECD Guideline 403)
Exposure time: 4 h

Dermal
Type of value: LD50
Species: rat (male/female)
Value: > 5,000 mg/kg (OECD Guideline 402)
No mortality was observed.

Assessment other acute effects
Assessment of STOT single:
The available information is not sufficient for evaluation.

Skin
Species: rabbit
Result: Irritant.
Method: OECD Guideline 404

Irritation / corrosion
Assessment of irritating effects: Not irritating to the eyes. Skin contact causes slight irritation. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Skin
Species: rabbit
Result: Irritant.
Method: OECD Guideline 404
Eye
Species: rabbit
Result: non-irritant
Method: OECD Guideline 405

Sensitization
Assessment of sensitization: Sensitization after skin contact possible. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Buehler test
Species: guinea pig
Result: Caused skin sensitization in animal studies.

Chronic Toxicity/Effects

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

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: metconazole
Assessment of repeated dose toxicity: Adaptive effects were observed after repeated exposure in animal studies.

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Genetic toxicity
Assessment of mutagenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

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

Information on: Metconazole
Assessment of carcinogenicity: In long-term studies in rodents exposed to high doses, a tumorigenic effect was found; however, these results are thought to be due to a rodent-specific liver effect that is not relevant to humans.

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Reproductive toxicity
Assessment of reproduction 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
Assessment of teratogenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: metconazole
Assessment of teratogenicity: Indications of possible developmental toxicity/teratogenicity were seen in animal studies.
Symptoms of Exposure

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.

12. Ecological Information

Toxicity

Aquatic toxicity
Assessment of aquatic toxicity:
The product has not been tested. The statement has been derived from the properties of the individual components. Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Toxicity to fish

Information on: Pyraclostrobin
LC50 (96 h) 0.0062 mg/l, Oncorhynchus mykiss

Information on: metconazole
LC50 (96 h) 2.1 mg/l, Oncorhynchus mykiss

Aquatic invertebrates

Information on: Pyraclostrobin
EC50 (48 h) 0.016 mg/l, Daphnia magna

Information on: metconazole
EC50 (48 h) 4.2 mg/l, Daphnia magna

Aquatic plants

Information on: Pyraclostrobin
EC50 (72 h) > 0.843 mg/l (growth rate), Pseudokirchneriella subcapitata

Information on: metconazole
EC50 (72 h) 2.2 mg/l, Selenastrum capricornutum
No observed effect concentration (72 h) 0.38 mg/l, Selenastrum capricornutum

Persistence and degradability

Assessment biodegradation and elimination (H2O)
The product has not been tested. The statement has been derived from the properties of the individual components.

Assessment biodegradation and elimination (H2O)

Information on: pyraclostrobin

Not readily biodegradable (by OECD criteria).
Information on: metconazole

Not readily biodegradable (by OECD criteria).

Bioaccumulative potential

Assessment bioaccumulation potential
The product has not been tested. The statement has been derived from the properties of the individual components.

Bioaccumulation potential

Information on: pyraclostrobin

Bioconcentration factor: 379 - 507, Oncorhynchus mykiss (OECD-Guideline 305)
Accumulation in organisms is not to be expected.

Information on: metconazole

Bioconcentration factor: 51 - 80, Lepomis macrochirus
Does not accumulate in organisms.

Mobility in soil

Assessment transport between environmental compartments
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: pyraclostrobin

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

Information on: metconazole

The substance will not evaporate into the atmosphere from the water surface. Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

Additional information

Other ecotoxicological advice:
Do not discharge product into the environment without control.

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.
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 PYRACLOSTROBIN, METCONAZOLE) |

**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 PYRACLOSTROBIN, METCONAZOLE) |

15. Regulatory Information

**Federal Regulations**

**Registration status:**

Chemical: DSL, CA blocked / not listed

Crop Protection: DSL, CA blocked / not listed

**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

**SDS Prepared by:**
BASF NA Product Regulations
SDS Prepared on: 2016/03/23

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