

Safety Data Sheet

HEADLINE AMP FUNGICIDE

Revision date : 2016/03/23
Version: 1.0

Page: 1/11
(30630006/SDS_CPA_CA/EN)

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

Safety Data Sheet

HEADLINE AMP FUNGICIDE

Revision date : 2016/03/23
Version: 1.0

Page: 2/11
(30630006/SDS_CPA_CA/EN)

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)

| <u>CAS Number</u> | <u>Weight %</u> | <u>Chemical name</u> |
|-------------------|-----------------|----------------------|
| 175013-18-0 | 13.64 % | Pyraclostrobin |
| 125116-23-6 | 5.14 % | Metconazole |

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

| <u>CAS Number</u> | <u>Weight %</u> | <u>Chemical name</u> |
|-------------------|-----------------|----------------------|
| 175013-18-0 | < 15.0% | pyraclostrobin |
| 125116-23-6 | < 6.0% | Metconazole |

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

Safety Data Sheet

HEADLINE AMP FUNGICIDE

Revision date : 2016/03/23
Version: 1.0

Page: 3/11
(30630006/SDS_CPA_CA/EN)

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.

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.

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.

Safety Data Sheet

HEADLINE AMP FUNGICIDE

Revision date : 2016/03/23
Version: 1.0

Page: 4/11
(30630006/SDS_CPA_CA/EN)

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 |

Safety Data Sheet

HEADLINE AMP FUNGICIDE

Revision date : 2016/03/23
Version: 1.0

Page: 5/11
(30630006/SDS_CPA_CA/EN)

| | |
|---|--|
| 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/cm ³ (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

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.

Incompatible materials

Safety Data Sheet

HEADLINE AMP FUNGICIDE

Revision date : 2016/03/23
Version: 1.0

Page: 6/11
(30630006/SDS_CPA_CA/EN)

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.

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

Safety Data Sheet

HEADLINE AMP FUNGICIDE

Revision date : 2016/03/23
Version: 1.0

Page: 7/11
(30630006/SDS_CPA_CA/EN)

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.

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.

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.

Safety Data Sheet

HEADLINE AMP FUNGICIDE

Revision date : 2016/03/23
Version: 1.0

Page: 8/11
(30630006/SDS_CPA_CA/EN)

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).

Safety Data Sheet

HEADLINE AMP FUNGICIDE

Revision date : 2016/03/23
Version: 1.0

Page: 9/11
(30630006/SDS_CPA_CA/EN)

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.

Safety Data Sheet

HEADLINE AMP FUNGICIDE

Revision date : 2016/03/23
Version: 1.0

Page: 10/11
(30630006/SDS_CPA_CA/EN)

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

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

Safety Data Sheet

HEADLINE AMP FUNGICIDE

Revision date : 2016/03/23

Page: 11/11

Version: 1.0

(30630006/SDS_CPA_CA/EN)

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.

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE , IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY OUR COMPANY HEREUNDER ARE GIVEN GRATIS AND WE ASSUME NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.
END OF DATA SHEET