1. Identification of the substance/mixture and of the company/undertaking

Product identifier

COLLIS

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: crop protection product, fungicide

Details of the supplier of the safety data sheet

Company:
BASF SE
67056 Ludwigshafen
GERMANY
Operating Division Crop Protection

Telephone: +49 621 60-27777
E-mail address: Produktinformation-Pflanzenschutz@basf.com

Emergency telephone number

International emergency number:
Telephone: +49 180 2273-112

2. Hazards Identification

Label elements

Globally Harmonized System, EU (GHS)

Pictogram:
Signal Word:
Warning

Hazard Statement:
H351 Suspected of causing cancer.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary Statements (Prevention):
P281 Use personal protective equipment as required.
P201 Obtain special instructions before use.

Precautionary Statements (Response):
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P391 Collect spillage.

Precautionary Statements (Storage):
P405 Store locked up.

Precautionary Statements (Disposal):
P501 Dispose of contents/container to hazardous or special waste collection point.

According to Regulation (EC) No 1272/2008 [CLP]
Hazard determining component(s) for labelling: KRESOXIM-METHYL

According to Directive 67/548/EEC or 1999/45/EC

EEC Directives

Hazard symbol(s)
Xn Harmful.
N Dangerous for the environment.

R-phrase(s)
R40 Limited evidence of a carcinogenic effect.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s)
S2 Keep out of the reach of children.
S13 Keep away from food, drink and animal feeding stuffs.
S20/21 When using do not eat, drink or smoke.
S36/37 Wear suitable protective clothing and gloves.
S46 If swallowed, seek medical advice immediately and show this container or label.
S29/35 Do not empty into drains, this material and its container must be disposed of in a safe way.
S57 Use appropriate container to avoid environmental contamination.

Hazard determining component(s) for labelling: KRESOXIM-METHYL

**Classification of the substance or mixture**

**According to Regulation (EC) No 1272/2008 [CLP]**

| Carc. 2
| Aquatic Acute 1
| Aquatic Chronic 1

**According to Directive 67/548/EEC or 1999/45/EC**

| Carc. Cat. 3

Possible Hazards:
Limited evidence of a carcinogenic effect.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

For the classifications not written out in full in this section the full text can be found in section 16.

**Other hazards**

**According to Regulation (EC) No 1272/2008 [CLP]**

See section 12 - Results of PBT and vPvB assessment.

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

### 3. Composition/Information on Ingredients

**Mixtures**

**Chemical nature**

crop protection product, fungicide, suspension concentrate (SC)

**Hazardous ingredients (GHS)**

according to Regulation (EC) No. 1272/2008
4. First-Aid Measures

Description of first aid measures
Remove contaminated clothing.

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

On skin contact:
| Wash thoroughly with soap and water.

On contact with eyes:
| Wash affected eyes for at least 15 minutes under running water with eyelids held open.

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

5. Fire-Fighting Measures

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

Special hazards arising from the substance or mixture
| carbon monoxide, hydrogen chloride, Carbon dioxide, nitrogen oxides, organochloric compounds
The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters
Special protective equipment:
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
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.
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.

Reference to other sections
Information regarding exposure controls/personal protection and disposal considerations can be found
in section 8 and 13.

7. Handling and Storage
Precautions for safe handling
Ensure thorough ventilation of stores and work areas. No special measures necessary if stored and
handled correctly. 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.

Storage stability:
Storage duration: 60 Months

Specific end use(s)
For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be
observed.

8. Exposure Controls/Personal Protection
Control parameters

Components with workplace control parameters

57-55-6: Propane-1,2-diol

Exposure controls
Personal protective equipment
Respiratory protection:
Suitable respiratory protection for higher concentrations or long-term effect: Combination filter for
gases/vapours of organic, inorganic, acid inorganic and alkaline compounds (e.g. EN 14387 Type
ABEK).

Hand protection:
Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) and other

Eye protection:
Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures
The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. 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

#### Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>liquid, suspension</td>
</tr>
<tr>
<td>Colour</td>
<td>white</td>
</tr>
<tr>
<td>Odour</td>
<td>aromatic, faint odour</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>not determined</td>
</tr>
<tr>
<td>pH value</td>
<td>approx. 5 - 7 (1 %(m), 20 °C) (measured with the undiluted substance)</td>
</tr>
<tr>
<td>Boiling point</td>
<td>approx. 100 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>No flash point - Measurement made up to the boiling point.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>not applicable</td>
</tr>
<tr>
<td>Flammability</td>
<td>not self-igniting</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>&gt; 600 °C</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>approx. 23 hPa (20 °C)</td>
</tr>
<tr>
<td>Information applies to the solvent.</td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>approx. 1.10 g/cm³ (20 °C)</td>
</tr>
<tr>
<td>Density</td>
<td>approx. 1.08 g/cm³ (55 °C)</td>
</tr>
<tr>
<td>Relative vapour density (air)</td>
<td>not determined</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>dispersible (20 °C)</td>
</tr>
</tbody>
</table>

Information applies to the solvent.
Information on: boscalid
Partitioning coefficient n-octanol/water (log Kow): 2.96

Thermal decomposition: not determined
Viscosity, dynamic: approx. 19.6 mPa.s
(20 °C, 100 1/s)
Explosion hazard: not explosive
Fire promoting properties: not fire-propagating

Other information

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.

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
See MSDS section 7 - Handling and storage.

Incompatible materials

Substances to avoid:
strong bases, strong acids, strong oxidizing agents

Hazardous decomposition products

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

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:
The product has not been tested. The statement has been derived from products of a similar structure
or composition. Virtually nonotoxic after a single skin contact. Virtually nonotoxic after a single ingestion.
Virtually nonotoxic by inhalation.

Experimental/calculated data:
LD50 rat (oral): > 5,000 mg/kg
LC50 rat (by inhalation): > 5.6 mg/l 4 h
LD50 rat (dermal): > 4,000 mg/kg

Irritation

Assessment of irritating effects:
Not irritating to the skin. Not irritating to the eyes.

Experimental/calculated data:
Skin corrosion/irritation rabbit: non-irritant
Serious eye damage/irritation rabbit: non-irritant

Respiratory/Skin sensitization

Assessment of sensitization:
There is no evidence of a skin-sensitizing potential.

Experimental/calculated data:
modified Buehler test guinea pig: Non-sensitizing.

Germ cell mutagenicity

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: Kresoxim-methyl
Assessment of carcinogenicity:
Limited evidence of a carcinogenic effect.

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.

Developmental toxicity

Assessment of 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.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)
Assessment of repeated dose toxicity:
The product has not been tested. The statement has been derived from the properties of the individual components. No substance-specific organotoxicity was observed after repeated administration of high doses to animals.

Other relevant toxicity information
Misuse can be harmful to health.

12. Ecological Information

Toxicity

Assessment of aquatic toxicity:
The product has not been tested. The statement has been derived from products of a similar structure or composition. Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Toxicity to fish:
LC50 (96 h) 2.00 mg/l, Oncorhynchus mykiss

Aquatic invertebrates:
EC50 (48 h) 0.52 mg/l, Daphnia magna

Aquatic plants:
EC50 (72 h) 4.49 mg/l (growth rate), Pseudokirchneriella subcapitata

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.

| Information on: boscalid |
| Assessment biodegradation and elimination (H2O): |
| Not readily biodegradable (by OECD criteria). |
| Information on: Kresoxim-methyl |
| Assessment biodegradation and elimination (H2O): |
| Poorly biodegradable. ----------------------------- |

Bioaccumulative potential

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

| Information on: boscalid |
| Bioaccumulation potential: |
| No significant accumulation in organisms is expected as a result of the distribution coefficient of n-octanol/water (log Pow). |

| Information on: Kresoxim-methyl |
| Bioaccumulation potential: |
| Bioconcentration factor: 220 (28 d), Oncorhynchus mykiss (OPP 72-6 (EPA-Guideline)) |
Mobility in soil (and other compartments if available)

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: boscalid
  Assessment transport between environmental compartments:
  Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

- Information on: Kresoxim-methyl
  Assessment transport between environmental compartments:
  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.

Results of PBT and vPvB assessment

The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

Other adverse effects

The product does not contain substances that are listed in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

Additional information

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

13. Disposal Considerations

Waste treatment methods

Must be sent to a suitable incineration plant, observing local regulations.

Contaminated packaging:
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

ADR
Hazard class: 9
15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

For the user of this plant-protective product applies: 'To avoid risks to man and the environment, comply with the instructions for use.' (Directive 1999/45/EC, Article 10, No. 1.2)
Chemical Safety Assessment

Advice on product handling can be found in sections 7 and 8 of this safety data sheet.

16. Other Information

For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

Full text of the classifications, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, if mentioned in section 2 or 3:

- N Dangerous for the environment.
- Xn Harmful.
- 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 40 Limited evidence of a carcinogenic effect.
- 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- Carc. Carcinogenicity
- Aquatic Acute Hazardous to the aquatic environment - acute
- Aquatic Chronic Hazardous to the aquatic environment - chronic
- Carc. Cat. 3 Carcinogenic substances Category 3: Substances which cause concern for man owing to possible carcinogenic effects.
- H411 Toxic to aquatic life with long lasting effects.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H351 Suspected of causing cancer.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Vertical lines in the left hand margin indicate an amendment from the previous version.