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

Product identifier

BELLIS

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:
H319 Causes serious eye irritation.
H302 Harmful if swallowed.
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):
P264 Wash with plenty of water and soap thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280b Wear eye protection.

Precautionary Statements (Response):
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P330 Rinse mouth.
P391 Collect spillage.

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: boscalid, pyraclostrobin

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)
R22 Harmful if swallowed.
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.
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: boscalid, pyraclostrobin

**Classification of the substance or mixture**

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

- Acute Tox. 4 (oral)
- Eye Dam./Irrit. 2
- Aquatic Acute 1
- Aquatic Chronic 1

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

Possible Hazards:
Harmful if swallowed.
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, water dispersible granules

**Hazardous ingredients (GHS)**
according to Regulation (EC) No. 1272/2008
bosalid
Content (W/W): 25.2 %
CAS Number: 188425-85-6
Aquatic Chronic 2
H411

Pyraclostrobin
Content (W/W): 12.8 %
CAS Number: 175013-18-0
INDEX-Number: 613-272-00-6
Acute Tox. 3 (Inhalation - mist)
Skin Corr./Irrit. 2
STOT SE 3 (irr. to respiratory syst.)
Aquatic Acute 1
Aquatic Chronic 1
M-factor acute: 100
H315, H331, H400, H410, H335

Sodium alkylnaphthalenesulfonate, polymer with formaldehyde
Content (W/W): < 15 %
Skin Corr./Irrit. 2
Eye Dam./Irrit. 2
H319, H315

Sodium alkylnaphthalenesulfonate blend
Content (W/W): < 5 %
Skin Corr./Irrit. 2
Eye Dam./Irrit. 1
H318, H315

Ammonium sulphate
Content (W/W): < 15 %
CAS Number: 7783-20-2
EC-Number: 231-984-1
REACH registration number: 01-2119455044-46

Silica gel, precipitated, crystalline free
Content (W/W): < 15 %
CAS Number: 112926-00-8
REACH registration number: 01-2119379499-16

Lignosulfonic acid, sodium salt
Content (W/W): < 15 %
CAS Number: 8061-51-6

Kaolin
BASF Safety data sheet according to Regulation (EC) No. 1907/2006
Date / Revised: 16.07.2012 Version: 4.0
Product: BELLIS

Content (W/W): < 5 %
CAS Number: 1332-58-7
EC-Number: 310-194-1

Eye Dam./Irrit. 2
H319

Sodium sulphate
Content (W/W): < 5 %
CAS Number: 7757-82-6
EC-Number: 231-820-9
REACH registration number: 01-2119519226-43

Hazardous ingredients
according to Directive 1999/45/EC

| boscalid |
| Content (W/W): 25.2 %
| CAS Number: 188425-85-6
| Hazard symbol(s): N
| R-phrase(s): 51/53 |

| Pyraclostrobin |
| Content (W/W): 12.8 %
| CAS Number: 175013-18-0 |
| INDEX-Number: 613-272-00-6 |
| Hazard symbol(s): T, N |
| R-phrase(s): 23, 37/38, 50/53 |

| Sodium alkylnapthalenesulfonate, polymer with formaldehyde |
| Content (W/W): < 15 % |
| Hazard symbol(s): Xi |
| R-phrase(s): 36/38 |

| Sodium alkylnapthalenesulfonate blend |
| Content (W/W): < 5 % |
| Hazard symbol(s): Xi |
| R-phrase(s): 38, 41 |
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, consult an eye specialist.

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, dry powder, foam

Unsuitable extinguishing media for safety reasons:
- carbon dioxide

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

carbon monoxide, hydrogen chloride, Carbon dioxide, nitrogen oxides, organochloric compounds, sulfur oxides

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:
- Keep containers cool by spraying with water if exposed to fire. 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, protective equipment and emergency procedures**

Avoid dust formation. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

**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: Contain with dust binding material and dispose of.
For large amounts: Sweep/shovel up.
Avoid raising dust. 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**
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:
Avoid dust formation. Dust can form an explosive mixture with air. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

Conditions for safe storage, including any incompatibilities
Segregate from foods and animal feeds. Further information on storage conditions: Keep away from heat. Protect against moisture. Protect from direct sunlight.

Storage stability:
Storage duration: 24 Months

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.

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

| 112926-00-8: Silica gel, precipitated, crystalline free |
| 7783-20-2: Ammonium sulphate |
| 8061-51-6: Lignosulfonic acid, sodium salt |
| 1332-58-7: Kaolin |
| 7757-82-6: Sodium sulphate |

Exposure controls

Personal protective equipment

Respiratory protection:
Suitable respiratory protection for higher concentrations or long-term effect: Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)
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

Form: granules, extrudates
Colour: brown
Odour: moderate odour, smoky
Odour threshold: not determined
pH value: approx. 6 - 8 (1 %(m), 20 °C) (as suspension)
melting range: approx. 50 °C
Boiling point: not applicable, The substance / product decomposes therefore not determined.
Flash point: not applicable
Evaporation rate: not applicable
Flammability: not highly flammable (Directive 84/449/EEC, A.10)
Lower explosion limit: not determined
Upper explosion limit: not determined
Vapour pressure: negligible
Density: approx. 1.51 g/cm3 (20 °C) (OECD Guideline 109)
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 acids, strong bases, 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 substances/products of a similar structure or composition. Of moderate toxicity after single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact.

Experimental/calculated data:
LD50 rat (oral): approx. 1,490 mg/kg
LC50 rat (by inhalation): > 5.4 mg/l 4 h
LD50 rat (dermal): > 2,000 mg/kg

Irritation

Assessment of irritating effects:
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. May cause slight irritation to the eyes. Not irritating to the skin.

Experimental/calculated data:
Skin corrosion/irritation rabbit: non-irritant (OECD Guideline 404)
Serious eye damage/irritation rabbit: non-irritant (OECD Guideline 405)

Respiratory/Skin sensitization

Assessment of sensitization:
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. 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. The results of various animal studies gave no indication 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.

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

Other relevant toxicity information
Misuse can be harmful to health.

12. Ecological Information

Toxicity

Assessment of aquatic toxicity:
Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Toxicity to fish:
LC50 (96 h) 0.042 mg/l, Oncorhynchus mykiss (OECD Guideline 203)

Aquatic invertebrates:
EC50 (48 h) 0.08 mg/l, Daphnia magna (OECD Guideline 202, part 1)

Aquatic plants:
EC50 (72 h) 4.99 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201)

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: pyraclostrobin
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:
Bioconcentration factor: 57 - 70 (28 d), Oncorhynchus mykiss
Does not accumulate in organisms.

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

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: Pyraclostrobin
Assessment transport between environmental compartments:
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
- Packing group: III
- ID number: UN 3077
- Hazard label: 9, EHSM
- Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains BOSCALID, PYRACLOSTROBIN)

RID

- Hazard class: 9
- Packing group: III
- ID number: UN 3077
- Hazard label: 9, EHSM
- Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains BOSCALID, PYRACLOSTROBIN)

**Inland waterway transport**

ADN

- Hazard class: 9
- Packing group: III
- ID number: UN 3077
- Hazard label: 9, EHSM
- Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains BOSCALID, PYRACLOSTROBIN)

**Sea transport**

IMDG
Hazard class: 9
Packing group: III
ID number: UN 3077
Hazard label: 9, EHSM
Marine pollutant: YES
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains BOSCALID, PYRACLOSTROBIN)

Air transport
IATA/ICAO
Hazard class: 9
Packing group: III
ID number: UN 3077
Hazard label: 9, EHSM
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains BOSCALID, PYRACLOSTROBIN)

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.
T          Toxic.
Xi         Irritant.
51/53      Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
23         Toxic by inhalation.
37/38      Irritating to respiratory system and skin.
50/53      Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
36/38      Irritating to eyes and skin.
38         Irritating to skin.
41         Risk of serious damage to eyes.
<table>
<thead>
<tr>
<th>Acute Tox.</th>
<th>Acute toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Dam./Irrit.</td>
<td>Serious eye damage/eye irritation</td>
</tr>
<tr>
<td>Aquatic Acute</td>
<td>Hazardous to the aquatic environment - acute</td>
</tr>
<tr>
<td>Aquatic Chronic</td>
<td>Hazardous to the aquatic environment - chronic</td>
</tr>
<tr>
<td>Skin Corr./Irrit.</td>
<td>Skin corrosion/irritation</td>
</tr>
<tr>
<td>STOT SE</td>
<td>Specific target organ toxicity — single exposure</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H331</td>
<td>Toxic if inhaled.</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life.</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage.</td>
</tr>
</tbody>
</table>

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.