

Safety data sheet

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BASF Safety data sheet according to Regulation (EC) No. 1907/2006

Date / Revised: 16.07.2012

Version: 4.0

Product: **BELLIS**

(ID no. 30246505/SDS_CPA_EU/EN)

Date of print 17.07.2012

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:



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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.
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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-phrases(s)

R22	Harmful if swallowed.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases(s)

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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

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| boscalidContent (W/W): 25.2 %
CAS Number: 188425-85-6Aquatic Chronic 2
H411**| Pyraclostrobin**Content (W/W): 12.8 %
CAS Number: 175013-18-0
INDEX-Number: 613-272-00-6Acute 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**

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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 alkylnaphthalenesulfonate, polymer with formaldehyde

Content (W/W): < 15 %
Hazard symbol(s): Xi
R-phrase(s): 36/38

Sodium alkylnaphthalenesulfonate blend

Content (W/W): < 5 %
Hazard symbol(s): Xi
R-phrase(s): 38, 41

| 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

Content (W/W): < 5 %

| CAS Number: 1332-58-7

| EC-Number: 310-194-1

| Sodium sulphate

Content (W/W): < 5 %

| CAS Number: 7757-82-6

| EC-Number: 231-820-9

| REACH registration number: 01-2119519226-43

For the classifications not written out in full in this section, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, the full text is listed in section 16.

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

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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

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

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:		
pH value:	not determined 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/cm ³ (20 °C)	(OECD Guideline 109)

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Relative vapour density (air):

negligible

Solubility in water: dispersible

Partitioning coefficient n-octanol/water (log Kow):

not applicable

Self ignition: Temperature: 328 °C

(Method: Directive 92/69/EEC, A.16)

Thermal decomposition: not determined

Viscosity, dynamic:

not applicable

Explosion hazard: not explosive

Fire promoting properties: not fire-propagating

(Directive 92/69/EEC, A.17)

Other information

Bulk density: approx. 600 kg/m³

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 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

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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.

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Acute Tox.	Acute toxicity
Eye Dam./Irrit.	Serious eye damage/eye irritation
Aquatic Acute	Hazardous to the aquatic environment - acute
Aquatic Chronic	Hazardous to the aquatic environment - chronic
Skin Corr./Irrit.	Skin corrosion/irritation
STOT SE	Specific target organ toxicity — single exposure
H411	Toxic to aquatic life with long lasting effects.
H315	Causes skin irritation.
H331	Toxic if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H335	May cause respiratory irritation.
H319	Causes serious eye irritation.
H318	Causes serious eye damage.

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.