

Safety data sheet

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BASF Safety data sheet according to Regulation (EC) No. 1907/2006
Date / Revised: 13.07.2010
Product: Pyraclostrobin

Version: 4.0

(62293/SDS_GEN_EU/EN)

Date of print 19.07.2010

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

Pyraclostrobin = Reg.304428

Company:

BASF SE
67056 Ludwigshafen
GERMANY
Telephone: +49 621 60-0
E-mail address: global.info@basf.com

Emergency information:

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

2. Hazards Identification

According to REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

Label elements and precautionary statement:

Pictogram:



Signal Word:
Danger

Hazard Statement:

Causes skin irritation. Toxic if inhaled. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves. Do not breathe dust. Wash with plenty of water and soap thoroughly after handling.

Precautionary Statements (Response):

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Call a POISON CENTER or doctor/physician. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. IF ON SKIN (on hair): Wash with plenty of soap and water. Collect spillage. If skin irritation occurs: Get medical advice/attention. Remove/Take off immediately all contaminated clothing.

Precautionary Statements (Storage):

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Precautionary Statements (Disposal):

Dispose of contents/container to hazardous or special waste collection point.

Classification of the substance and mixture:

Acute toxicity: Cat. 3 (Inhalation - mist)

Skin corrosion/irritation: Cat. 2

Acute hazards to the aquatic environment: Cat. 1

Chronic hazards to the aquatic environment: Cat. 1

Possible Hazards (according to Directive 67/548/EWG or 1999/45/EC)

Toxic by inhalation.

Irritating to skin.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. Composition/Information on Ingredients

Chemical nature

Product for the production of: crop protection product, fungicide

pyraclostrobin (Content (W/W): ≥ 97.5 %)

CAS Number: 175013-18-0

4. First-Aid Measures

General advice:

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:

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

On skin contact:

Immediately wash thoroughly with soap and water, seek medical attention.

On contact with eyes:

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

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On ingestion:

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

Note to physician:

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

5. Fire-Fighting Measures

Suitable extinguishing media:

dry powder, foam, water spray, carbon dioxide

Specific hazards:

carbon monoxide, hydrogen chloride, nitrogen oxides, organochloric compounds
The substances/groups of substances mentioned can be released in case of fire.

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. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. In case of fire and/or explosion do not breathe fumes.

6. Accidental Release Measures

Personal precautions:

Use personal protective clothing. Avoid contact with the skin, eyes and clothing. Remove contaminated clothes, undergarments and shoes immediately.

Environmental precautions:

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

Methods for cleaning up or taking up:

For small amounts: Sweep/shovel up.

For large amounts: Sweep/shovel up.

Cleaning operations should be carried out only while wearing breathing apparatus. 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.

7. Handling and Storage

Handling

No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas.

Protection against fire and explosion:

Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

Storage

Segregate from foods and animal feeds. Segregate from acids and bases.

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.

8. Exposure Controls/Personal Protection

Personal protective equipment**Respiratory protection:**

Breathing protection if gases/vapours are formed. Combination filter for gases/vapours of organic, inorganic, acid inorganic, alkaline compounds and toxic particles (e. g. EN 14387 Type ABEK-P3)

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:

Handle in accordance with good industrial hygiene and safety practice. Avoid inhalation of vapour. Avoid contact with the skin, eyes and clothing. Wearing of closed work clothing is recommended. Remove contaminated clothing immediately and dispose of safely. Store work clothing separately. Keep away from food, drink and animal feeding stuffs. No eating, drinking, smoking or tobacco use at the place of work. Hands and/or face should be washed before breaks and at the end of the shift.

9. Physical and Chemical Properties

Form: melt, solidified

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Colour:	viscous tan	
Odour:	almost odourless	
pH value:	6.5 (0.5 %(m), 20 °C)	
melting range:	63.7 - 65.2 °C	
Boiling point:	not applicable	
Flash point:	> 100 °C	(DIN EN 22719; ISO 2719)
Flammability:	not highly flammable	(Directive 92/69/EEC, A.10)
Ignition temperature:	510 °C	(Directive 92/69/EEC, A.15)
Self ignition:	not self-igniting	(Method: Directive 92/69/EEC, A.16)
Explosion hazard:	not explosive	(Directive 92/69/EEC, A.14)
Fire promoting properties:	not fire-propagating	(Directive 92/69/EEC, A.17)
Vapour pressure:	0.000026 mPa (20 °C)	
Density:	1.29 g/cm ³ (25 °C)	
Relative density:	1.29 (25 °C)	
Bulk density:	approx. 1,290 kg/m ³	
Solubility in water:	1.9 mg/l (20 °C)	
Partitioning coefficient n-octanol/water (log Pow):	3.99 (22 °C)	
Surface tension:	71.5 mN/m (20 °C; 2.0 %(V))	
Viscosity, dynamic:	> 1,000 Pa.s (25 °C)	
Viscosity, kinematic:	not applicable	
Molar mass:	387.83 g/mol	

10. Stability and Reactivity

Conditions to avoid:

Temperature: > 90 °C

Avoid all sources of ignition: heat, sparks, open flame. Avoid extreme temperatures. Avoid prolonged exposure to extreme heat. Avoid contamination. Avoid electro-static discharge. Avoid prolonged storage.

Thermal decomposition: 160 °C

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No decomposition if stored and handled as prescribed/indicated. To avoid thermal decomposition, do not overheat. May decompose violently. Decomposition may extend over the whole product quantity.

Substances to avoid:
acids, bases

Corrosion to metals: Corrosive effects to metal are not anticipated.

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

Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated. At prolonged and/or strong thermal stressing above the decomposition temperature dangerous decomposition products can be formed.

Possible thermal decomposition products:
4-chloroaniline

11. Toxicological Information

Acute toxicity

Experimental/calculated data:
LD50 rat (oral): > 5,000 mg/kg (OECD Guideline 401)

LC50 rat (by inhalation): 0.58 mg/l 4 h (OECD Guideline 403)
An aerosol was tested.

LD50 rat (dermal): > 2,000 mg/kg (OECD Guideline 402)

Irritation

Experimental/calculated data:
Skin corrosion/irritation rabbit: Irritant.

Serious eye damage/irritation rabbit: non-irritant

Respiratory/Skin sensitization

Assessment of sensitization:
Skin sensitizing effects were not observed in animal studies.

Experimental/calculated data:
Guinea pig maximization test : Non-sensitizing.

Germ cell mutagenicity

Assessment of mutagenicity:

No mutagenic effect was found in various tests with microorganisms and mammalian cell culture.

Carcinogenicity**Assessment of carcinogenicity:**

In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed.

Reproductive toxicity**Assessment of reproduction toxicity:**

The results of animal studies gave no indication of a fertility impairing effect.

Developmental toxicity**Assessment of teratogenicity:**

No indications of a developmental toxic / teratogenic effect were seen in animal studies.

Other relevant toxicity information

Misuse can be harmful to health.

12. Ecological Information**Ecotoxicity****Toxicity to fish:**

LC50 (96 h) > 0.0121 - < 0.0258 mg/l, *Cyprinus carpio*

LC50 (96 h) > 0.0131 - < 0.0299 mg/l, *Lepomis macrochirus*

The statement of the toxic effect relates to the analytically determined concentration.

LC50 (96 h) 0.0062 mg/l, *Oncorhynchus mykiss*

Aquatic invertebrates:

EC50 (48 h) 0.016 mg/l, *Daphnia magna*

Aquatic plants:

EC50 (96 h) > 0.843 mg/l (growth rate), *Pseudokirchneriella subcapitata*

Microorganisms/Effect on activated sludge:

EC20 > 100 mg/l

Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

Persistence and degradability**Assessment biodegradation and elimination (H₂O):**

Not readily biodegradable (by OECD criteria).

Elimination information:

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0 - 10 % (28 d) Not readily biodegradable (by OECD criteria).

Bioaccumulation potential

Bioaccumulation potential:

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is possible.

Additional information

Other ecotoxicological advice:

Do not discharge product into the environment without control.

13. Disposal Considerations

Must be disposed of or incinerated in accordance with 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 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 PYRACLOSTROBIN)

Inland waterway transport

ADNR

Hazard class:	9
Packing group:	III
ID number:	UN 3077

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Hazard label: 9, EHSM
 Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
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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 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 PYRACLOSTROBIN)

15. Regulatory Information**Regulations of the European union (Labelling) / National legislation/Regulations****EEC Directives:****Hazard symbol(s)**

T Toxic.
 N Dangerous for the environment.

R-phrase(s)

R23 Toxic by inhalation.
 R38 Irritating to skin.
 R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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S-phrase(s)

S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S60	This material and its container must be disposed of as hazardous waste.
S61	Avoid release to the environment. Refer to special instructions/safety data sheets.
S63	In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Hazard determining component(s) for labelling: PYRACLOSTROBIN

Other regulations

as in Annex I of Directive 67/548/EEC

16. Other Information

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

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.