

Safety data sheet

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BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 19.12.2024

Version: 2.0

Date / Previous version: 28.07.2023

Previous version: 1.0

Product: **Serpent®**

(ID no. 30655440/SDS_CPA_XI/EN)

Date of print 08.01.2025

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Serpent®

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

Relevant identified uses: crop protection product, fungicide

1.3. Details of the supplier of the safety data sheet

Company:

BASF plc

4th and 5th Floors

2 Stockport Exchange

Railway Road, Stockport, SK1 3GG

UNITED KINGDOM

Telephone: +44 161 475 3000

E-mail address: product-safety-uk-and-ireland@basf.com

1.4. Emergency telephone number

Telephone: +49 180 2273-112

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

For the classification of the mixture the following methods have been applied: extrapolation on the concentration levels of the hazardous substances, on basis of test results and after evaluation of experts. The methodologies used are mentioned at the respective test results.

According to Regulation (EC) No 1272/2008 [CLP]Acute Tox. 4 (Inhalation -
vapour)

H332 Harmful if inhaled.

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Acute Tox. 4 (oral)	H302 Harmful if swallowed.
Repr. Additional category for effects on or via lactation.	H362 May cause harm to breast-fed children.
STOT SE 3	H335 May cause respiratory irritation.
Aquatic Chronic 1	H410 Very toxic to aquatic life with long lasting effects.
Repr. 2	H361d Suspected of damaging the unborn child.
STOT RE 2	H373 May cause damage to organs (Liver, Nasal cavity, Gastrointestinal tract) through prolonged or repeated exposure (dermal).

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

2.2. Label elements

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

Globally Harmonized System (GHS) in accordance with UK regulations.

Pictogram:



Signal Word:

Warning

Hazard Statement:

H302	Harmful if swallowed.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361d	Suspected of damaging the unborn child.
H362	May cause harm to breast-fed children.
H373	May cause damage to organs (Liver, Nasal cavity, Gastrointestinal tract) through prolonged or repeated exposure.
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 Statement:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.

Precautionary Statements (Prevention):

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/gas/mist/vapours.
P263	Avoid contact during pregnancy and while nursing.
P264	Wash contaminated body parts thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing and eye protection or face protection.

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Precautionary Statements (Response):

P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308 + P313	IF exposed or concerned: Get medical attention.
P312	Call a POISON CENTER or physician if you feel unwell.
P330	Rinse mouth.
P391	Collect spillage.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.
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Labeling of special preparations (GHS):

| EUH208: May produce an allergic reaction. Contains: 2-ethylhexyl-S-lactate

| Hazard determining component(s) for labelling: pyraclostrobin (ISO); methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yloxymethyl]phenyl}(N-methoxy)carbamate, 1H-Pyrazole-4-carboxamide, 3-(difluoromethyl)-1-methyl-N-(3',4',5'-trifluoro[1,1'-biphenyl]-2-yl)-; Fluxapyroxad, N,N-Dimethyldodecanamide

2.3. 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.

Product does not contain a substance above legal limits included in the list established in accordance with Article 59(1) of Regulation (EC) No 1907/2006 for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Chemical nature

crop protection product, Emulsifiable concentrate (EC), fungicide

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Regulatory relevant ingredients

pyraclostrobin (ISO); methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yloxymethyl]phenyl}(N-methoxy)carbamate

Content (W/W): 14.63 %	Acute Tox. 3 (Inhalation - mist)
CAS Number: 175013-18-0	Acute Tox. 4 (oral)
INDEX-Number: 613-272-00-6	Skin Irrit. 2
	Repr. 2 (unborn child)
Substance with EU occupational exposure limit	STOT SE 3 (irr. to respiratory syst.)
	STOT RE (Liver, Nasal cavity, Gastrointestinal tract) 2
	Aquatic Acute 1
	Aquatic Chronic 1
	M-factor acute: 100
	M-factor chronic: 100
	H315, H331, H302, H335, H361d, H373, H400, H410
	<u>Acute toxicity estimate:</u>
	oral: 450 mg/kg
	Inhalation: 0.58 mg/l

1H-Pyrazole-4-carboxamide, 3-(difluoromethyl)-1-methyl-N-(3',4',5'-trifluoro[1,1'-biphenyl]-2-yl)-; Fluxapyroxad

Content (W/W): 7.32 %	Repr. Add. cat. lact.
CAS Number: 907204-31-3	Aquatic Acute 1
	Aquatic Chronic 1
Substance with EU occupational exposure limit	M-factor acute: 1
	M-factor chronic: 1
	H362, H400, H410

2-ethylhexyl (2S)-2-hydroxypropanoate

Content (W/W): < 45 %	Skin Corr./Irrit. 2
CAS Number: 186817-80-1	Eye Dam./Irrit. 2
REACH registration number: 01-2119516238-41	Skin Sens. 1B
	H319, H315, H317

N,N-Dimethyldodecanamide

Content (W/W): < 25 %	Skin Irrit. 2
CAS Number: 3007-53-2	Eye Irrit. 2
EC-Number: 221-117-5	STOT SE 3 (irr. to respiratory syst.)
REACH registration number: 01-2120099180-57	Aquatic Acute 1
	Aquatic Chronic 2
	M-factor acute: 1
	H319, H315, H335, H411, H400

Methyl-Oxirane, Blockpolymer with Oxirane, Monoisotridecyl ether

Content (W/W): < 20 %	Eye Dam./Irrit. 2
CAS Number: 196823-11-7	H319

acetophenone

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<p>Content (W/W): < 20 % CAS Number: 98-86-2 EC-Number: 202-708-7 REACH registration number: 01-2119533169-37 INDEX-Number: 606-042-00-1</p>	<p>Acute Tox. 4 (oral) Eye Dam./Irrit. 2 H319, H302</p>
<p> Hydrocarbons, C9, aromatics Content (W/W): < 10 % REACH registration number: 01-2119455851-35</p>	<p>Asp. Tox. 1 Flam. Liq. 3 STOT SE 3 (drowsiness and dizziness) STOT SE 3 (irr. to respiratory syst.) Aquatic Chronic 2 H226, H304, H336, H335, H411 EUH066</p>
<p> Poly(oxy-1,2-ethanediyl), .alpha.-[tris(1-phenylethyl)phenyl]-.omega.-hydroxy- Content (W/W): < 10 % CAS Number: 99734-09-5</p>	<p>Aquatic Chronic 3 H412</p>
<p> Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts Content (W/W): < 10 % CAS Number: 68953-96-8 EC-Number: 273-234-6 REACH registration number: 01-2119964467-24</p>	<p>Acute Tox. 4 (dermal) Skin Corr./Irrit. 2 Eye Dam./Irrit. 1 Aquatic Chronic 2 H318, H315, H312, H411</p>
<p> Alcohols, C11-14-iso-, C13-rich, ethoxylated Content (W/W): < 5 % CAS Number: 78330-21-9</p>	<p>Acute Tox. 4 (oral) Eye Dam./Irrit. 1 Aquatic Acute 1 Aquatic Chronic 2 H318, H302, H411, H400</p>

For the classifications not written out in full in this section, including the hazard classes and the hazard statements, the full text is listed in section 16.

SECTION 4: First-Aid Measures

4.1. Description of first aid measures

Show container, label and/or safety data sheet to physician.

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.

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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.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

Hazards: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11. (Further) symptoms and / or effects are not known so far

4.3. Indication of any immediate medical attention and special treatment needed

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

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing media

Suitable extinguishing media:

water spray, foam, dry powder, carbon dioxide

5.2. Special hazards arising from the substance or mixture

Endangering substances: carbon monoxide, Carbon dioxide, hydrogen chloride, hydrogen fluoride, nitrogen oxides, sulfur oxides, halogenated compounds

Advice: The substances/groups of substances mentioned can be released in case of fire.

5.3. 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.

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SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Do not breathe vapour/spray. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

6.2. Environmental precautions

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

Do not allow contamination of public drains or surface or ground waters. Inform local water plc if spillage enters drains and the Environment Agency (England & Wales), the Scottish Environmental Protection Agency (Scotland), or the Environment and Heritage Service (Northern Ireland) if it enters surface or ground waters. Keep people and animals away.

6.3. 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. Wear suitable protective equipment.

6.4. Reference to other sections

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

SECTION 7: Handling and Storage

7.1. 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:

Vapours may form ignitable mixture with air. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

7.2. 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.

Protect from temperatures below: -10 °C

Changes in the properties of the product may occur if substance/product is stored below indicated temperature for extended periods of time.

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.

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7.3. 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.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Components with occupational exposure limits

175013-18-0: pyraclostrobin (ISO)

TWA value 0.13 mg/m³ (BASF recomm. occupational exposure limit)

907204-31-3: 3-(difluoromethyl)-1-methyl-N-(3',4',5'-trifluorobiphenyl-2-yl)pyrazole-4-carboxamide; fluxapyroxad

TWA value 0.5 mg/m³ (BASF recomm. occupational exposure limit)

Refer to the current edition of HSE Guidance Note EH40 Occupational Exposure Limits (United Kingdom). For normal use and handling refer to the product label/leaflet.

8.2. Exposure controls

Personal protective equipment

Respiratory protection:

Suitable respiratory protection for lower concentrations or short-term effect: 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 ISO 374-1) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc.

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

Wearing of closed work clothing is recommended. The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

State of matter:	liquid
Form:	liquid
Colour:	yellow
Odour:	strong, sweetish
Odour threshold:	Not determined since harmful by inhalation.
crystallization temperature:	approx. < -20 °C
boiling temperature:	approx. 202 °C Information applies to the solvent.
Flammability:	No dangerous quantities of flammable gases will be produced by contact with water.
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.
Flash point:	99 °C
Auto-ignition temperature:	351 °C
Thermal decomposition:	140 °C, 90 kJ/kg (DSC (DIN 51007)) (onset temperature) Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.
SADT:	> 75 °C Heat accumulation / Dewar 500 ml (SADT, UN-Test H.4, 28.4.4)
pH value:	approx. 5 - 7 (1 %(m), 20 °C)
Viscosity, dynamic:	approx. 14 mPa.s (40 °C, 10 1/s)
Solubility in water:	emulsifiable
Partitioning coefficient n-octanol/water (log Kow):	not applicable for mixtures
Vapour pressure:	approx. 0.02 hPa (20 °C) Information applies to the solvent.
Density:	approx. 1.03 g/cm ³ (20 °C)
Relative vapour density (air):	not applicable

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9.2. Other information

Information with regard to physical hazard classes

Explosives

Explosion hazard: not explosive

Oxidizing properties

Fire promoting properties: not fire-propagating

Other safety characteristics

Evaporation rate:
not applicable

SECTION 10: Stability and Reactivity

10.1. Reactivity

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

10.2. Chemical stability

The product is stable if stored and handled as prescribed/indicated.

10.3. Possibility of hazardous reactions

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

10.4. Conditions to avoid

See SDS section 7 - Handling and storage.

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological Information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Assessment of acute toxicity:

Of moderate toxicity after single ingestion. Of moderate toxicity after short-term inhalation. 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.

Experimental/calculated data:

LD50 rat (oral): > 500 - < 2,000 mg/kg (OECD Guideline 423)

LC50 rat (by inhalation): > 2.3 - < 4.8 mg/l 4 h

Tested as dust aerosol.

LD50 rat (dermal): > 5,000 mg/kg (OECD Guideline 402)

No mortality was observed.

Irritation

Assessment of irritating effects:

Not irritating to eyes and skin. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

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:

No sensitizing effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Experimental/calculated data:

Mouse Local Lymph Node Assay (LLNA) mouse: Non-sensitizing. (OECD Guideline 429)

Germ cell mutagenicity

Assessment of mutagenicity:

Mutagenicity tests revealed no genotoxic potential. The product has not been tested. The statement has been derived from the properties of the individual components.

Carcinogenicity

Assessment of carcinogenicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: 1H-Pyrazole-4-carboxamide, 3-(difluoromethyl)-1-methyl-N-(3',4',5'-trifluoro[1,1'-biphenyl]-2-yl)-; Fluxapyroxad

Assessment of carcinogenicity:

Indication of possible carcinogenic effect in animal tests. The effect is caused by an animal specific mechanism that has no human counter part.

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Reproductive toxicity

Assessment of reproduction toxicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: 1H-Pyrazole-4-carboxamide, 3-(difluoromethyl)-1-methyl-N-(3',4',5'-trifluoro[1,1'-biphenyl]-2-yl)-; Fluxapyroxad

Assessment of reproduction toxicity:

The results of animal studies gave no indication of a fertility impairing effect. May cause harm to children via breast-feeding.

Developmental toxicity

Assessment of teratogenicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: pyraclostrobin (ISO); methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yloxymethyl]phenyl}(N-methoxy)carbamate

Assessment of teratogenicity:

Indications of possible developmental toxicity/teratogenicity were seen in animal studies.

Information on: N,N-Dimethyldodecanamide

Assessment of teratogenicity:

The substance did not cause malformations in animal studies; however, toxicity to development was observed at high doses that were toxic to the parental animals. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Specific target organ toxicity (single exposure)

Assessment of STOT single:

Causes temporary irritation of the respiratory tract.

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

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: pyraclostrobin (ISO); methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yloxymethyl]phenyl}(N-methoxy)carbamate

Assessment of repeated dose toxicity:

Repeated exposure may affect certain organs. Target organs: Liver, gastrointestinal tract and nasal cavity

Information on: 1H-Pyrazole-4-carboxamide, 3-(difluoromethyl)-1-methyl-N-(3',4',5'-trifluoro[1,1'-biphenyl]-2-yl)-; Fluxapyroxad

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Assessment of repeated dose toxicity:

Adaptive effects were observed after repeated exposure in animal studies.

Information on: 2-ethylhexyl (2S)-2-hydroxypropanoate

Assessment of repeated dose toxicity:

After repeated exposure the prominent effect is local irritation.

Information on: N,N-Dimethyldodecanamide

Assessment of repeated dose toxicity:

After repeated exposure the prominent effect is local irritation. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Information on: Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts

Assessment of repeated dose toxicity:

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. The substance may cause damage to the kidney after repeated ingestion of high doses, as shown in animal studies.

Information on: Hydrocarbons, C9, aromatics

Assessment of repeated dose toxicity:

Effects on the kidney of male rats were detected after repeated exposure. These effects are specific for the male rat and are known to be of no relevance to humans. After repeated exposure the prominent effect is local irritation. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aspiration hazard

No aspiration hazard expected.

The product has not been tested. The statement has been derived from the properties of the individual components.

Interactive effects

No data available.

11.2. Information on other hazards

Endocrine disrupting properties

Product does not contain a substance above legal limits included in the list established in accordance with Article 59(1) of Regulation (EC) No 1907/2006 for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

Other information

Other relevant toxicity information

Misuse can be harmful to health.

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SECTION 12: Ecological Information

12.1. Toxicity

Assessment of aquatic toxicity:

Very toxic to aquatic life with long lasting effects.

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Toxicity to fish:

LC50 (96 h) 0.046 mg/l, *Oncorhynchus mykiss* (Directive 92/69/EEC, C.1)

Aquatic invertebrates:

EC50 (48 h) 0.307 mg/l, *Daphnia magna* (Screening (style of OECD 202), static)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aquatic plants:

EC50 (72 h) 3.67 mg/l (growth rate), *Pseudokirchneriella subcapitata* (Guideline 92/69/EEC, C.3, static)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

EC10 (72 h) 1.69 mg/l, *Pseudokirchneriella subcapitata* (OECD Guideline 201)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Information on: pyraclostrobin (ISO); methyl N-[2-[1-(4-chlorophenyl)-1H-pyrazol-3-yloxymethyl]phenyl](N-methoxy)carbamate

Chronic toxicity to fish:

*No observed effect concentration (98 d) approx. 0.00235 mg/l, *Oncorhynchus mykiss* (OECD Guideline 210, Flow through.)*

Information on: 1H-Pyrazole-4-carboxamide, 3-(difluoromethyl)-1-methyl-N-(3',4',5'-trifluoro[1,1'-biphenyl]-2-yl)-; Fluxapyroxad

Chronic toxicity to fish:

*No observed effect concentration (33 d) 0.0359 mg/l, *Pimephales promelas* (OECD Guideline 210, Flow through.)*

Information on: pyraclostrobin (ISO); methyl N-[2-[1-(4-chlorophenyl)-1H-pyrazol-3-yloxymethyl]phenyl](N-methoxy)carbamate

Chronic toxicity to aquatic invertebrates:

*No observed effect concentration (21 d) 0.004 mg/l, *Daphnia magna* (OECD Guideline 202, part 2, semistatic)*

The details of the toxic effect relate to the nominal concentration.

*No observed effect concentration (31 d) 0.000365 mg/l, *Mysidopsis bahia**

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Information on: 1H-Pyrazole-4-carboxamide, 3-(difluoromethyl)-1-methyl-N-(3',4',5'-trifluoro[1,1'-biphenyl]-2-yl)-; Fluxapyroxad

Chronic toxicity to aquatic invertebrates:

No observed effect concentration (21 d) 0.5 mg/l, Daphnia magna (OECD Guideline 211, semistatic)

12.2. 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: pyraclostrobin (ISO); methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yl]oxymethyl}phenyl}(N-methoxy)carbamate

Assessment biodegradation and elimination (H₂O):

Not readily biodegradable (by OECD criteria).

Information on: 1H-Pyrazole-4-carboxamide, 3-(difluoromethyl)-1-methyl-N-(3',4',5'-trifluoro[1,1'-biphenyl]-2-yl)-; Fluxapyroxad

Assessment biodegradation and elimination (H₂O):

Not readily biodegradable (by OECD criteria).

12.3. 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: pyraclostrobin (ISO); methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yl]oxymethyl}phenyl}(N-methoxy)carbamate

Bioaccumulation potential:

Bioconcentration factor(BCF): 379 - 507, Oncorhynchus mykiss (OECD Guideline 305)

Accumulation in organisms is not to be expected.

Information on: 1H-Pyrazole-4-carboxamide, 3-(difluoromethyl)-1-methyl-N-(3',4',5'-trifluoro[1,1'-biphenyl]-2-yl)-; Fluxapyroxad

Bioaccumulation potential:

Bioconcentration factor(BCF): 36 - 37 (28 d), Lepomis macrochirus (OECD Guideline 305)

Does not accumulate in organisms.

12.4. Mobility in soil

Assessment transport between environmental compartments:

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Adsorption in soil: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: pyraclostrobin (ISO); methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yloxymethyl]phenyl}(N-methoxy)carbamate

Assessment transport between environmental compartments:

Adsorption in soil: Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

Information on: 1H-Pyrazole-4-carboxamide, 3-(difluoromethyl)-1-methyl-N-(3',4',5'-trifluoro[1,1'-biphenyl]-2-yl)-; Fluxapyroxad

Assessment transport between environmental compartments:

Adsorption in soil: Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

12.5. 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.

12.6. Endocrine disrupting properties

Product does not contain a substance above legal limits included in the list established in accordance with Article 59(1) of Regulation (EC) No 1907/2006 for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

The product does not contain substances that are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

Additional information

Other ecotoxicological advice:

Do not discharge product into the environment without control.

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Must be disposed of or incinerated in accordance with local regulations.

The UK Environmental Protection (Duty of Care) Regulations (EP) and amendments should be noted (United Kingdom).

This product and any uncleaned containers must be disposed of as hazardous waste in accordance with the 2005 Hazardous Waste Regulations and amendments (United Kingdom)

Contaminated packaging:

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Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

SECTION 14: Transport Information

Land transport

ADR

UN number or ID number: UN3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PYRACLOSTROBIN, FLUXAPYROXAD)

Transport hazard class(es): 9, EHS
Packing group: III
Environmental hazards: yes
Special precautions for user: None known

RID

UN number or ID number: UN3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PYRACLOSTROBIN, FLUXAPYROXAD)

Transport hazard class(es): 9, EHS
Packing group: III
Environmental hazards: yes
Special precautions for user: None known

Inland waterway transport

ADN

UN number or ID number: UN3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PYRACLOSTROBIN, FLUXAPYROXAD)

Transport hazard class(es): 9, EHS
Packing group: III
Environmental hazards: yes
Special precautions for user: None known

Transport in inland waterway vessel

Not evaluated

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Sea transport

IMDG

UN number or ID number: UN 3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (PYRACLOSTROBIN, FLUXAPYROXAD)

Transport hazard class(es): 9, EHSM
Packing group: III
Environmental hazards: yes
Marine pollutant: YES
Special precautions for user: EmS: F-A; S-F

Air transport

IATA/ICAO

UN number or ID number: UN 3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (PYRACLOSTROBIN, FLUXAPYROXAD)

Transport hazard class(es): 9, EHSM
Packing group: III
Environmental hazards: yes
Special precautions for user: None known

14.1. UN number or ID number

See corresponding entries for "UN number or ID number" for the respective regulations in the tables above.

14.2. UN proper shipping name

See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

14.3. Transport hazard class(es)

See corresponding entries for "Transport hazard class(es)" for the respective regulations in the tables above.

14.4. Packing group

See corresponding entries for "Packing group" for the respective regulations in the tables above.

14.5. Environmental hazards

See corresponding entries for "Environmental hazards" for the respective regulations in the tables above.

14.6. Special precautions for user

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See corresponding entries for "Special precautions for user" for the respective regulations in the tables above.

14.7. Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

Further information

Product may be shipped as non-hazardous in suitable packages containing a net quantity of 5 L or less under the provisions of various regulatory agencies: ADR, RID, ADN: Special Provision 375; IMDG: 2.10.2.7; IATA: A197; TDG: Special Provision 99(2); 49CFR: §171.4 (c) (2) and also the Special Provision 375 in Appendix B which is regulated in China "Regulations Concerning Road Transportation of Dangerous Goods Part 3: Index of dangerous goods name and transportation requirements" (JT/T 617.3)

This product is subject to the most recent edition of "The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations" and their amendments (United Kingdom).

SECTION 15: Regulatory Information

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

Prohibitions, Restrictions and Authorizations

Annex XVII of Regulation (EC) No 1907/2006: Number on List: 3, 75

Restrictions of Regulation (EC) No 1907/2006, Annex XVII, do not apply for the intended use(s) of the product given in this SDS.

Directive 2012/18/EU - Control of Major Accident Hazards involving dangerous substances (EU):

List entry in regulation: E1

Classification applies for standard conditions of temperature and pressure.

To avoid risks to man and the environment, comply with the instructions for use.

The data should be considered when making any assessment under the Control of Substances Hazardous to Health Regulations (COSHH), and related guidance, for example, 'COSHH Essentials' (United Kingdom).

This product may be subject to the Control of Major Accident Hazards Regulations (COMAH), and amendments if specific threshold tonnages are exceeded (United Kingdom).

15.2. Chemical Safety Assessment

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

SECTION 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 hazard classes and the hazard statements, if mentioned in section 2 or 3:

Acute Tox.	Acute toxicity
Repr.	Reproductive toxicity
STOT SE	Specific target organ toxicity — single exposure
Aquatic Chronic	Hazardous to the aquatic environment - chronic
STOT RE	Specific target organ toxicity — repeated exposure
Skin Irrit.	Skin irritation
Aquatic Acute	Hazardous to the aquatic environment - acute
Skin Corr./Irrit.	Skin corrosion/irritation
Eye Dam./Irrit.	Serious eye damage/eye irritation
Skin Sens.	Skin sensitization
Eye Irrit.	Eye irritation
Asp. Tox.	Aspiration hazard
Flam. Liq.	Flammable liquids
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361d	Suspected of damaging the unborn child.
H362	May cause harm to breast-fed children.
H373	May cause damage to organs (Liver, Nasal cavity, Gastrointestinal tract) through prolonged or repeated exposure.
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.
H315	Causes skin irritation.
H331	Toxic if inhaled.
H400	Very toxic to aquatic life.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.
H318	Causes serious eye damage.
H312	Harmful in contact with skin.
EUH066	Repeated exposure may cause skin dryness or cracking.

Abbreviations

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road.
 ADN = The European Agreement concerning the International Carriage of Dangerous Goods by Inland waterways. ATE = Acute Toxicity Estimates. CAO = Cargo Aircraft Only. CAS = Chemical Abstract Service. CLP = Classification, Labelling and Packaging of substances and mixtures. DIN = German national organization for standardization. DNEL = Derived No Effect Level. EC50 = Effective concentration median for 50% of the population. EC = European Community. EN = European Standards. IARC = International Agency for Research on Cancer. IATA = International Air Transport Association. IBC-Code = Intermediate Bulk Container code. IMDG = International Maritime Dangerous Goods Code. ISO = International Organization for Standardization. STEL = Short-Term Exposure Limit. LC50 = Lethal concentration median for 50% of the population. LD50 = Lethal dose median for 50% of the population. TLV = Threshold Limit Value. MARPOL = The International Convention for the Prevention of Pollution

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from Ships. NEN = Dutch Norm. NOEC = No Observed Effect Concentration. OEL = Occupational Exposure Limit. OECD = Organization for Economic Cooperation and Development. PBT = Persistent, Bioaccumulative and Toxic. PNEC = Predicted No Effect Level. PPM = Parts per million. RID = The European Agreement concerning the International Carriage of Dangerous Goods by Rail. TWA = Time Weight Average. UN-number = UN number at transport. vPvB = very Persistent and very Bioaccumulative.

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. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. 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.