

# Safety data sheet

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Date / Revised: 30.03.2023  
Date previous version: 17.11.2022  
Date / First version: 28.08.2008  
Product: **Malibu®**

Version: 10.0  
Previous version: 9.0

(ID no. 30468366/SDS\_CPA\_EU/EN)

Date of print 18.09.2023

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

### 1.1. Product identifier

**Malibu®**

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

Relevant identified uses: crop protection product, herbicide

### 1.3. 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

### 1.4. Emergency telephone number

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

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## 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]

Asp. Tox. 1	H304 May be fatal if swallowed and enters airways.
Acute Tox. 4 (oral)	H302 Harmful if swallowed.
Skin Corr./Irrit. 2	H315 Causes skin irritation.
Repr. 2	H361d Suspected of damaging the unborn child.
Aquatic Acute 1	H400 Very toxic to aquatic life.
Aquatic Chronic 1	H410 Very toxic to aquatic life with long lasting effects.

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]

Pictogram:



Signal Word:

Danger

Hazard Statement:

H315	Causes skin irritation.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H361d	Suspected of damaging the unborn child.
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 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):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P270	Do not eat, drink or smoke when using this product.

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P264 Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or physician.  
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
 P330 Rinse mouth.  
 P391 Collect spillage.  
 P308 + P313 IF exposed or concerned: Get medical attention.  
 P332 + P313 If skin irritation occurs: Get medical attention.  
 P331 Do NOT induce vomiting.  
 P362 + P364 Take off contaminated clothing and wash it before reuse.

Precautionary Statements (Storage):

P405 Store locked up.

Precautionary Statements (Disposal):

P501 Dispose of contents and container to hazardous or special waste collection point.

Labeling of special preparations (GHS):

EUH208: May produce an allergic reaction. Contains: flufenacet (ISO); N-(4-fluorophenyl)-N-isopropyl-2-(5-trifluoromethyl-[1,3,4]thiadiazol-2-yloxy)acetamide, benzaldehyde

Hazard determining component(s) for labelling: pendimethalin (ISO); N-(1-ethylpropyl)-2,6-dinitro-3,4-xylidine, Hydrocarbons, C10-C13, aromatics, < 1% naphthalen

### 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.

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## SECTION 3: Composition/Information on Ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Chemical nature

crop protection product, herbicide, Emulsifiable concentrate (EC)

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#### Regulatory relevant ingredients

pendimethalin (ISO); N-(1-ethylpropyl)-2,6-dinitro-3,4-xylidine

Content (W/W): 28.3 %	Repr. 2 (unborn child)
CAS Number: 40487-42-1	Aquatic Acute 1
EC-Number: 254-938-2	Aquatic Chronic 1
INDEX-Number: 609-042-00-X	M-factor acute: 100
	M-factor chronic: 10
	H361d, H400, H410

flufenacet (ISO); N-(4-fluorophenyl)-N-isopropyl-2-(5-trifluoromethyl-[1,3,4]thiadiazol-2-yloxy)acetamide

Content (W/W): 5.66 %	Acute Tox. 4 (oral)
CAS Number: 142459-58-3	Skin Sens. 1
INDEX-Number: 613-164-00-9	STOT RE (Central nervous system) 2
	Aquatic Acute 1
	Aquatic Chronic 1
	M-factor acute: 100
	M-factor chronic: 100
	H302, H317, H373, H400, H410

| Hydrocarbons, C10-C13, aromatics, < 1% naphthalen

Content (W/W): < 60 %	Asp. Tox. 1
REACH registration number: 01-2119451097-39	Aquatic Chronic 2
	H304, H411
	EUH066

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

Content (W/W): < 5 %	Acute Tox. 4 (dermal)
CAS Number: 68953-96-8	Skin Corr./Irrit. 2
EC-Number: 273-234-6	Eye Dam./Irrit. 1
REACH registration number: 01-2119964467-24	Aquatic Chronic 2
	H318, H315, H312, H411

Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-

Content (W/W): < 5 %	Acute Tox. 4 (oral)
CAS Number: 24938-91-8	Eye Dam./Irrit. 1
	H318, H302

2-methylpropan-1-ol

Content (W/W): < 5 %	Flam. Liq. 3
CAS Number: 78-83-1	Skin Corr./Irrit. 2
EC-Number: 201-148-0	Eye Dam./Irrit. 1
REACH registration number: 01-2119484609-23	STOT SE 3 (drowsiness and dizziness)
	STOT SE 3 (irr. to respiratory syst.)
	H226, H318, H315, H336, H335

benzaldehyde

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Content (W/W): < 1 %	Acute Tox. 4 (oral)
CAS Number: 100-52-7	Skin Sens. 1
EC-Number: 202-860-4	H302, H317
REACH registration number: 01-2119455540-44	
INDEX-Number: 605-012-00-5	

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.

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## SECTION 4: First-Aid Measures

### 4.1. Description of first aid measures

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.

On ingestion:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention. Do not induce vomiting due to aspiration hazard.

### 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

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

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

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## SECTION 5: Fire-Fighting Measures

### 5.1. Extinguishing media

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

### 5.2. Special hazards arising from the substance or mixture

Endangering substances: carbon monoxide, hydrogen chloride, hydrogen fluoride, Carbon dioxide, 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:  
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. In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire.

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

### 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.

### 6.4. Reference to other sections

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

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## 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.

Storage stability:

Storage duration: 60 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.

### 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.

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## SECTION 8: Exposure Controls/Personal Protection

### 8.1. Control parameters

Components with occupational exposure limits

78-83-1: 2-methylpropan-1-ol

Hydrocarbons, C10-C13, aromatics, < 1% naphthalen

### 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:

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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

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.

## **SECTION 9: Physical and Chemical Properties**

### **9.1. Information on basic physical and chemical properties**

State of matter:	liquid	
Form:	liquid	
Colour:	amber	
Odour:	aromatic	
Odour threshold:	Not determined due to potential health hazard by inhalation.	
solidification temperature:	approx. -10 °C	
onset of boiling:	Information applies to the solvent. approx. 244 °C	
Flammability:	Information applies to the solvent. not applicable	
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:	63.5 °C	(ISO 13736)



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Auto-ignition temperature:	377 °C	(Directive 84/449/EEC, A.15)
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
pH value:	approx. 4 - 6 (CIPAC standard water D, 1 %(m), 20 °C)	(pH Meter)
Viscosity, kinematic:	approx. 7 mm <sup>2</sup> /s (40 °C)	
Viscosity, dynamic:	approx. 11.7 mPa.s (25 °C)	(calculated (from kinematic viscosity))
Solubility in water:	emulsifiable	
Partitioning coefficient n-octanol/water (log Kow):	not applicable	
Vapour pressure:	approx. 0.003 kPa (20 °C)	
Density:	Information applies to the solvent. approx. 1.06 g/cm <sup>3</sup> (20 °C)	(OECD Guideline 109)
Relative vapour density (air):	not applicable	

## 9.2. Other information

### Information with regard to physical hazard classes

#### Explosives

Explosion hazard: not explosive (Directive 92/69/EEC, A.14)

#### Oxidizing properties

Fire promoting properties: not fire-propagating (Directive 2004/73/EC, A.21)

### Other safety characteristics

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

Evaporation rate: not applicable

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## 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.

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#### **10.4. Conditions to avoid**

See SDS section 7 - Handling and storage.

#### **10.5. Incompatible materials**

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

#### **10.6. Hazardous decomposition products**

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

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### **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. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation. 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): 1,340 mg/kg (OECD Guideline 401)

LC50 rat (by inhalation): > 5.08 mg/l 4 h (OECD Guideline 403)  
An aerosol was tested.

LD50 rat (dermal): > 4,000 mg/kg (OECD Guideline 402)  
No mortality was observed.

##### Irritation

Assessment of irritating effects:  
Skin contact causes irritation. Not irritating to the eyes. 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: Irritant. (OECD Guideline 404)

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Serious eye damage/irritation  
rabbit: non-irritant (OECD Guideline 405)

#### Respiratory/Skin sensitization

Assessment of sensitization:

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

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

*Information on: benzaldehyde*

*Assessment of mutagenicity:*

*The substance was not mutagenic in bacteria. The substance was mutagenic in a mammalian cell culture test system.*

#### Carcinogenicity

Assessment of carcinogenicity:

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

*Information on: pendimethalin (ISO); N-(1-ethylpropyl)-2,6-dinitro-3,4-xylidine*

*Assessment of carcinogenicity:*

*In long-term studies in rats the substance induced thyroid tumors. The effect is caused by an animal specific mechanism that has no human counter part. In long-term studies in mice in which the substance was given by feed, a carcinogenic effect was not observed.*

#### 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

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**Assessment of teratogenicity:**

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

*Information on: pendimethalin (ISO); N-(1-ethylpropyl)-2,6-dinitro-3,4-xylylidine*

*Assessment of teratogenicity:*

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

Specific target organ toxicity (single exposure)

**Assessment of STOT single:**

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

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: pendimethalin (ISO); N-(1-ethylpropyl)-2,6-dinitro-3,4-xylylidine*

*Assessment of repeated dose toxicity:*

*No substance-specific organotoxicity was observed after repeated administration to animals. Adaptive effects were observed after repeated exposure in animal studies.*

*Information on: flufenacet (ISO); N-(4-fluorophenyl)-N-isopropyl-2-(5-trifluoromethyl-[1,3,4]thiadiazol-2-yloxy)acetamide*

*Assessment of repeated dose toxicity:*

*Repeated oral exposure may affect certain organs.*

*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: benzaldehyde*

*Assessment of repeated dose toxicity:*

*The substance may cause damage to the kidney after repeated ingestion of high doses, as shown in animal studies.*

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#### Aspiration hazard

May also damage the lung at swallowing (aspiration hazard).  
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) 0.63 mg/l, *Oncorhynchus mykiss* (OECD 203; ISO 7346; 92/69/EEC, C.1, Flow through.)

Aquatic invertebrates:

EC50 (48 h) 5.3 mg/l, *Daphnia magna* (Directive 92/69/EEC, C.2, static)

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Aquatic plants:

No observed effect concentration (7 d) 0.0003 mg/l, Lemna gibba (OECD guideline 221, static)

EC50 (7 d) 0.186 mg/l (growth rate), Lemna gibba (OECD guideline 221, static)

EC50 (72 h) > 0.077 mg/l (growth rate), Selenastrum capricornutum

Chronic toxicity to aquatic invertebrates:

No observed effect concentration (21 d) 0.13 mg/l, Daphnia magna (Flow through.)

## 12.2. Persistence and degradability

Assessment biodegradation and elimination (H<sub>2</sub>O):

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

*Information on: pendimethalin (ISO); N-(1-ethylpropyl)-2,6-dinitro-3,4-xylidine*

*Assessment biodegradation and elimination (H<sub>2</sub>O):*

*Not readily biodegradable (by OECD criteria).*

*Information on: flufenacet (ISO); N-(4-fluorophenyl)-N-isopropyl-2-(5-trifluoromethyl-[1,3,4]thiadiazol-2-yloxy)acetamide*

*Assessment biodegradation and elimination (H<sub>2</sub>O):*

*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: flufenacet (ISO); N-(4-fluorophenyl)-N-isopropyl-2-(5-trifluoromethyl-[1,3,4]thiadiazol-2-yloxy)acetamide*

*Assessment bioaccumulation potential:*

*Does not accumulate in organisms.*

*Information on: pendimethalin (ISO); N-(1-ethylpropyl)-2,6-dinitro-3,4-xylidine*

*Bioaccumulation potential:*

*Bioconcentration factor (BCF): 3,300*

*Based on a weight of evidence, the compound will not bioaccumulate.*

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## 12.4. Mobility in soil

Assessment transport between environmental compartments:

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

*Information on: pendimethalin (ISO); N-(1-ethylpropyl)-2,6-dinitro-3,4-xylidine*

*Assessment transport between environmental compartments:*

*Volatility: The substance will slowly evaporate into the atmosphere from the water surface.*

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

*Information on: flufenacet (ISO); N-(4-fluorophenyl)-N-isopropyl-2-(5-trifluoromethyl-[1,3,4]thiadiazol-2-yloxy)acetamide*

*Assessment transport between environmental compartments:*

*Adsorption in soil: Following exposure to soil, the product trickles away and can - dependant on degradation - be transported to deeper soil areas with larger water loads.*

## 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.

## 12.8. Additional information

Other ecotoxicological advice:

Do not discharge product into the environment without control.

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## SECTION 13: Disposal Considerations

### 13.1. 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.

## SECTION 14: Transport Information

### Land transport

ADR

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

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. (PENDIMETHALIN, FLUFENACET)

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. (PENDIMETHALIN, FLUFENACET)

Transport hazard class(es): 9, EHS



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Packing group: III  
Environmental hazards: yes  
Special precautions for user: None known

Transport in inland waterway vessel  
Not evaluated

### Sea transport

IMDG

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

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. (PENDIMETHALIN, FLUFENACET)

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.

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#### **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**

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)

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### **SECTION 15: Regulatory Information**

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

Directive 2012/18/EU - Control of Major Accident Hazards involving dangerous substances (EU):  
List entry in regulation: E1

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

#### **15.2. Chemical Safety Assessment**

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

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### **SECTION 16: Other Information**

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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:

Asp. Tox.	Aspiration hazard
Acute Tox.	Acute toxicity
Skin Corr./Irrit.	Skin corrosion/irritation
Repr.	Reproductive toxicity
Aquatic Acute	Hazardous to the aquatic environment - acute
Aquatic Chronic	Hazardous to the aquatic environment - chronic
Skin Sens.	Skin sensitization
STOT RE	Specific target organ toxicity — repeated exposure
Eye Dam./Irrit.	Serious eye damage/eye irritation
Flam. Liq.	Flammable liquids
STOT SE	Specific target organ toxicity — single exposure
H315	Causes skin irritation.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H361d	Suspected of damaging the unborn child.
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.
H317	May cause an allergic skin reaction.
H373	May cause damage to organs (Central nervous system) through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H318	Causes serious eye damage.
H312	Harmful in contact with skin.
H226	Flammable liquid and vapour.
H336	May cause drowsiness or dizziness.
H335	May cause respiratory irritation.
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 from Ships. NEN = Dutch Norm. NOEC = No Observed Effect Concentration. OEL = Occupational Exposure Limit. OECD = Organization for Economic Cooperation and Development. PBT = Persistent,

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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.

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