

# Safety data sheet

Page: 1/21

---

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

Date / Revised: 20.12.2019

Version: 7.0

Date previous version: 26.02.2019

Previous version: 6.0

Product: **Crystal**

(ID no. 30450362/SDS\_CPA\_GB/EN)

Date of print 20.12.2019

---

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

### 1.1. Product identifier

## Crystal

### 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  
GERMANYContact address:BASF plc  
PO Box 4, Earl Road, Cheadle Hulme,  
Cheadle, Cheshire  
SK8 6QG, UNITED KINGDOM

Telephone: +44 161 485-6222

E-mail address: product-safety-north@basf.com

### 1.4. Emergency telephone number

International emergency 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.

---

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

Date / Revised: 20.12.2019

Version: 7.0

Date previous version: 26.02.2019

Previous version: 6.0

Product: **Crystal**

(ID no. 30450362/SDS\_CPA\_GB/EN)

Date of print 20.12.2019

---

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

Asp. Tox. 1  
Acute Tox. 4 (oral)  
Skin Corr./Irrit. 2  
Aquatic Acute 1  
Aquatic Chronic 1

H315, H302, H304, H400, H410, EUH401

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

## 2.2. Label elements

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

Pictogram:



Signal Word:

Danger

Hazard Statement:

H315	Causes skin irritation.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
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 label before use.

Precautionary Statements (Prevention):

P264	Wash contaminated body parts thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves.

Precautionary Statements (Response):

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

Date / Revised: 20.12.2019

Version: 7.0

Date previous version: 26.02.2019

Previous version: 6.0

Product: **Crystal**

(ID no. 30450362/SDS\_CPA\_GB/EN)

Date of print 20.12.2019

P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P303 + P352	IF ON SKIN (or hair): Wash with plenty of soap and water.
P330	Rinse mouth.
P331	Do NOT induce vomiting.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.

Precautionary Statements (Storage):

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.

Labeling of special preparations (GHS):

EUH208: May produce an allergic reaction. Contains: pendimethalin (ISO); N-(1-ethylpropyl)-2,6-dinitro-3,4-xylidine, flufenacet (ISO); N-(4-fluorophenyl)-N-isopropyl-2-(5-trifluoromethyl-[1,3,4]thiadiazol-2-yloxy)acetamide, benzaldehyde, Octanal

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

Hazard determining component(s) for labelling: pendimethalin (ISO); N-(1-ethylpropyl)-2,6-dinitro-3,4-xylidine, flufenacet (ISO); N-(4-fluorophenyl)-N-isopropyl-2-(5-trifluoromethyl-[1,3,4]thiadiazol-2-yloxy)acetamide, Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified; [A complex combination of hydrocarbons obtained from distillation of aromatic streams. It consists predominantly of aromatic hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approximately 165 oC to 290 oC (330 oF to 554 oF).], 2-methylnaphthalene, Naphthalene, 1-methyl-, Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts, biphenyl

### 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.

---

## SECTION 3: Composition/Information on Ingredients

### 3.1. Substances

Not applicable

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

Date / Revised: 20.12.2019

Version: 7.0

Date previous version: 26.02.2019

Previous version: 6.0

Product: **Crystal**

(ID no. 30450362/SDS\_CPA\_GB/EN)

Date of print 20.12.2019

### 3.2. Mixtures

#### Chemical nature

crop protection product, herbicide, Emulsifiable concentrate (EC)

#### Hazardous ingredients (GHS)

according to Regulation (EC) No. 1272/2008

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

Content (W/W): 28.3 %

CAS Number: 40487-42-1

EC-Number: 254-938-2

INDEX-Number: 609-042-00-X

Skin Sens. 1

Aquatic Acute 1

Aquatic Chronic 1

M-factor acute: 100

M-factor chronic: 10

H317, H400, H410

Differing classification according to current knowledge and the criteria given in Annex I of Regulation (EC) No. 1272/2008

Skin Sens. 1B

Aquatic Acute 1

Aquatic Chronic 1

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

Content (W/W): 5.66 %

CAS Number: 142459-58-3

INDEX-Number: 613-164-00-9

Acute Tox. 4 (oral)

Skin Sens. 1

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

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified; [A complex combination of hydrocarbons obtained from distillation of aromatic streams. It consists predominantly of aromatic hydrocarbons having carbon numbers predominantly in the range of C9 thro ugh C16 and boiling in the range of approximately 165 oC to 290 oC (330 oF to 554 oF).]

Content (W/W): &lt; 55 %

CAS Number: 64742-94-5

REACH registration number: 01-2119451097-39

Asp. Tox. 1

Aquatic Chronic 2

H304, H411

EUH066

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

Date / Revised: 20.12.2019

Version: 7.0

Date previous version: 26.02.2019

Previous version: 6.0

Product: **Crystal**

(ID no. 30450362/SDS\_CPA\_GB/EN)

Date of print 20.12.2019

**2-methylnaphthalene**

Content (W/W): < 25 %	Acute Tox. 4 (oral)
CAS Number: 91-57-6	Aquatic Chronic 2
EC-Number: 202-078-3	H302, H411
REACH registration number: 01-2119489455-25	

**Naphthalene, 1-methyl-**

Content (W/W): < 15 %	Acute Tox. 4 (oral)
CAS Number: 90-12-0	Aquatic Chronic 2
EC-Number: 201-966-8	H302, H411
REACH registration number: 01- 2119489997-0	

**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

**biphenyl**

Content (W/W): < 5 %	Skin Corr./Irrit. 2
CAS Number: 92-52-4	Eye Dam./Irrit. 2
EC-Number: 202-163-5	STOT SE 3 (irr. to respiratory syst.)
REACH registration number: 01- 2119480408-33	Aquatic Acute 1 Aquatic Chronic 1
INDEX-Number: 601-042-00-8	M-factor acute: 1 M-factor chronic: 1 H319, H315, H335, H400, H410

**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

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

Date / Revised: 20.12.2019

Version: 7.0

Date previous version: 26.02.2019

Previous version: 6.0

Product: **Crystal**

(ID no. 30450362/SDS\_CPA\_GB/EN)

Date of print 20.12.2019

**benzaldehyde**

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	

Pitch, coal tar, high-temp.; Pitch; [The residue from the distillation of high temperature coal tar. A black solid with an approximate softening point from 30 oC to 180 oC (86oF to 356oF). Composed primarily of a complex mixture of three or more membered condensed ring aromatic hydrocarbons.]

Content (W/W): < 1 %	Acute Tox. 4 (oral)
CAS Number: 85-01-8	Aquatic Acute 1
EC-Number: 201-581-5	Aquatic Chronic 1
INDEX-Number: 648-055-00-5	M-factor acute: 10
	M-factor chronic: 1
	H302, H400, H410

**naphthalene**

Content (W/W): < 1 %	Flam. Sol. 2
CAS Number: 91-20-3	Acute Tox. 4 (oral)
EC-Number: 202-049-5	Carc. 2
REACH registration number: 01-2119561346-37	Aquatic Acute 1
INDEX-Number: 601-052-00-2	Aquatic Chronic 1
	M-factor acute: 1
	M-factor chronic: 1
	H228, H302, H351, H400, H410

**Octanal**

Content (W/W): < 1 %	Flam. Liq. 3
CAS Number: 124-13-0	Skin Corr./Irrit. 2
EC-Number: 204-683-8	Eye Dam./Irrit. 2
REACH registration number: 01-2119638274-38	Skin Sens. 1
	Aquatic Chronic 2
	H226, H319, H315, H317, H411

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.

---

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

Date / Revised: 20.12.2019

Version: 7.0

Date previous version: 26.02.2019

Previous version: 6.0

Product: **Crystal**

(ID no. 30450362/SDS\_CPA\_GB/EN)

Date of print 20.12.2019

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.

---

## **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**

carbon monoxide, hydrogen fluoride, Carbon dioxide, nitrogen oxides, sulfur oxides

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.

---

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

Date / Revised: 20.12.2019

Version: 7.0

Date previous version: 26.02.2019

Previous version: 6.0

Product: **Crystal**

(ID no. 30450362/SDS\_CPA\_GB/EN)

Date of print 20.12.2019

---

## 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.

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.

### 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 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)



---

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

Date / Revised: 20.12.2019

Version: 7.0

Date previous version: 26.02.2019

Previous version: 6.0

Product: **Crystal**

(ID no. 30450362/SDS\_CPA\_GB/EN)

Date of print 20.12.2019

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

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

TWA value 154 mg/m<sup>3</sup> ; 50 ppm (WEL/EH 40 (UK))

STEL value 231 mg/m<sup>3</sup> ; 75 ppm (WEL/EH 40 (UK))

91-57-6:

2-methylnaphthalene

Skin Designation (Directive 2004/37/EC)

The substance can be absorbed through the skin.

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 and alkaline compounds (e.g. EN 14387 Type ABEK).

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) 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**

Form:	liquid	
Colour:	amber	
Odour:	aromatic	
Odour threshold:	Not determined due to potential health hazard by inhalation.	
pH value:	approx. 4 - 6 (CIPAC standard water D, 1 %(m), 20 °C)	(pH Meter)
solidification temperature:	approx. -10 °C	
onset of boiling:	Information applies to the solvent. approx. 244 °C	
Flash point:	Information applies to the solvent. 63.5 °C	(DIN EN ISO 13736)
Evaporation rate:	not applicable	
Flammability:	not highly flammable	(Directive 92/69/EEC, A.12)
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.	
Ignition temperature:	377 °C	(Directive 84/449/EEC, A.15)
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	
Solubility in water:	emulsifiable	
Partitioning coefficient n-octanol/water (log Kow):	not applicable	
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Viscosity, dynamic:	11.7 mPa.s (25 °C)	(calculated (from kinematic viscosity))
Explosion hazard:	not explosive	(Directive 92/69/EEC, A.14)

---

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

Date / Revised: 20.12.2019

Version: 7.0

Date previous version: 26.02.2019

Previous version: 6.0

Product: **Crystal**

(ID no. 30450362/SDS\_CPA\_GB/EN)

---

Fire promoting properties: not fire-propagating

Date of print 20.12.2019  
(Directive 2004/73/EC, A.21)

## 9.2. Other information

Other Information:

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

---

## 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 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.

---

## SECTION 11: Toxicological Information

### 11.1. Information on toxicological effects

#### 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)

---

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

Date / Revised: 20.12.2019

Version: 7.0

Date previous version: 26.02.2019

Previous version: 6.0

Product: **Crystal**

(ID no. 30450362/SDS\_CPA\_GB/EN)

Date of print 20.12.2019

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)

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:

modified Buehler test guinea pig: Skin sensitizing effects were not observed in animal studies. (OECD Guideline 406)

#### 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.*

*Information on: naphthalene*

*Assessment of mutagenicity:*

*The substance was not mutagenic in bacteria. The substance was mutagenic in a mammalian cell culture test system. The substance was not mutagenic in a test with mammals. Literature data.*

#### Carcinogenicity

Assessment of carcinogenicity:

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

---

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

Date / Revised: 20.12.2019

Version: 7.0

Date previous version: 26.02.2019

Previous version: 6.0

Product: **Crystal**

(ID no. 30450362/SDS\_CPA\_GB/EN)

Date of print 20.12.2019

---

**| Information on: pendimethalin (ISO)**

*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.*

**| Information on: naphthalene**

*Assessment of carcinogenicity:*

*In long-term studies in rats and mice in which the substance was given by inhalation, a carcinogenic effect was observed. EU-classification The substance was classified as a group 3 carcinogen by the German MAK-Commission (substances for which a suspicion of a carcinogenic potential exists). IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans).*

-----

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.

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-xylidine*

*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.*

---

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

Date / Revised: 20.12.2019

Version: 7.0

Date previous version: 26.02.2019

Previous version: 6.0

Product: **Crystal**

(ID no. 30450362/SDS\_CPA\_GB/EN)

Date of print 20.12.2019

*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: biphenyl*

*Assessment of repeated dose toxicity:*

*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.*

*Information on: naphthalene*

*Assessment of repeated dose toxicity:*

*The substance may cause damage to the olfactory epithelium after repeated inhalation.*

#### 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.

#### Other relevant toxicity information

Misuse can be harmful to health.

---

## **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.)

---

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

Date / Revised: 20.12.2019

Version: 7.0

Date previous version: 26.02.2019

Previous version: 6.0

Product: **Crystal**

(ID no. 30450362/SDS\_CPA\_GB/EN)

Date of print 20.12.2019

---

Aquatic invertebrates:

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

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, Lemna gibba (OECD guideline 221, static)

EC50 (7 d) > 0.077 mg/l, 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 (H2O):

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 (H2O):*

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

*Bioaccumulation potential:*

*Bioconcentration factor: 3,300*

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

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

*Bioaccumulation potential:*

*Bioconcentration factor: 71*

*Does not accumulate in organisms.*

-----

## 12.4. Mobility in soil

---

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

Date / Revised: 20.12.2019

Version: 7.0

Date previous version: 26.02.2019

Previous version: 6.0

Product: **Crystal**

(ID no. 30450362/SDS\_CPA\_GB/EN)

Date of print 20.12.2019

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. Other adverse effects

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

## 12.7. 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:

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

---



---

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

Date / Revised: 20.12.2019

Version: 7.0

Date previous version: 26.02.2019

Previous version: 6.0

Product: **Crystal**

(ID no. 30450362/SDS\_CPA\_GB/EN)

Date of print 20.12.2019

---

## SECTION 14: Transport Information

### Land transport

ADR

UN number UN3082  
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S. (contains PENDIMETHALIN, SOLVENT NAPHTHA)  
Transport hazard class(es): 9, EHSM  
Packing group: III  
Environmental hazards: yes  
Special precautions for user: None known

RID

UN number UN3082  
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S. (contains PENDIMETHALIN, SOLVENT NAPHTHA)  
Transport hazard class(es): 9, EHSM  
Packing group: III  
Environmental hazards: yes  
Special precautions for user: None known

### Inland waterway transport

ADN

UN number UN3082  
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S. (contains PENDIMETHALIN, SOLVENT NAPHTHA)  
Transport hazard class(es): 9, EHSM  
Packing group: III  
Environmental hazards: yes  
Special precautions for user: None known

### Transport in inland waterway vessel

Not evaluated

### Sea transport

IMDG

UN number: UN 3082

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

Date / Revised: 20.12.2019

Version: 7.0

Date previous version: 26.02.2019

Previous version: 6.0

Product: **Crystal**

(ID no. 30450362/SDS\_CPA\_GB/EN)

Date of print 20.12.2019

UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S. (contains PENDIMETHALIN, SOLVENT NAPHTHA)  
Transport hazard class(es): 9, EHSM  
Packing group: III  
Environmental hazards: yes  
Marine pollutant: YES  
Special precautions for user: None known

### **Air transport**

IATA/ICAO

UN number: UN 3082  
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S. (contains PENDIMETHALIN, SOLVENT NAPHTHA)  
Transport hazard class(es): 9, EHSM  
Packing group: III  
Environmental hazards: yes  
Special precautions for user: None known

#### **14.1. UN number**

See corresponding entries for "UN 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**

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

#### **14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code**

Regulation: Not evaluated

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

Date / Revised: 20.12.2019

Version: 7.0

Date previous version: 26.02.2019

Previous version: 6.0

Product: **Crystal**

(ID no. 30450362/SDS\_CPA\_GB/EN)

Date of print 20.12.2019

Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

### **Further information**

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

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

This product is classified under the European CLP Regulation. (United Kingdom)

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).

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

### **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:

Asp. Tox.	Aspiration hazard
Acute Tox.	Acute toxicity
Skin Corr./Irrit.	Skin corrosion/irritation
Aquatic Acute	Hazardous to the aquatic environment - acute
Aquatic Chronic	Hazardous to the aquatic environment - chronic

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

Date / Revised: 20.12.2019

Version: 7.0

Date previous version: 26.02.2019

Previous version: 6.0

Product: **Crystal**

(ID no. 30450362/SDS\_CPA\_GB/EN)

Date of print 20.12.2019

Skin Sens.	Skin sensitization
STOT RE	Specific target organ toxicity — repeated exposure
Eye Dam./Irrit.	Serious eye damage/eye irritation
STOT SE	Specific target organ toxicity — single exposure
Flam. Liq.	Flammable liquids
Flam. Sol.	Flammable solids
Carc.	Carcinogenicity
H315	Causes skin irritation.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
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 (peripheral 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.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H226	Flammable liquid and vapour.
H336	May cause drowsiness or dizziness.
H228	Flammable solid.
H351	Suspected of causing cancer.
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, 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

---

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

Date / Revised: 20.12.2019

Version: 7.0

Date previous version: 26.02.2019

Previous version: 6.0

Product: **Crystal**

(ID no. 30450362/SDS\_CPA\_GB/EN)

Date of print 20.12.2019

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.