

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: 18.01.2019

Version: 9.0

Product: **Canopy**

(ID no. 30298001/SDS_CPA_GB/EN)

Date of print 19.01.2019

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

1.1. Product identifier

Canopy

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

Relevant identified uses: crop protection product, growth regulator

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

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

Acute Tox. 4 (oral)

Eye Dam./Irrit. 2

H302, H319, 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:

Warning

Hazard Statement:

| | |
|--------|---|
| H302 | Harmful if swallowed. |
| H319 | Causes serious eye irritation. |
| 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 with plenty of water and soap thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P280 | Wear eye/face protection. |

Precautionary Statements (Response):

| | |
|--------------------|--|
| P301 + P312 | IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. |
| P330 | Rinse mouth. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P337 + P313 | If eye irritation persists: Get medical advice/attention. |

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. |
|------|---|

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

Hazard determining component(s) for labelling: 1,1-dimethylpiperidinium chloride

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

3.2. Mixtures

Chemical nature

crop protection product, growth regulator, suspension concentrate (SC)

Hazardous ingredients (GHS)

according to Regulation (EC) No. 1272/2008

1,1-dimethylpiperidinium chloride

Content (W/W): 26.5 %

CAS Number: 24307-26-4

EC-Number: 246-147-6

INDEX-Number: 613-127-00-7

Acute Tox. 4 (oral)

Aquatic Chronic 3

H302, H412

prohexadione calcium

Content (W/W): 4.4 %

CAS Number: 127277-53-6

Aquatic Chronic 3

H412

Ammonium nitrate

Content (W/W): < 20 %

CAS Number: 6484-52-2

EC-Number: 229-347-8

REACH registration number: 01-

2119490981-27

Ox. Sol. 3

Eye Dam./Irrit. 2

H272, H319

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.

| Remove contaminated clothing.

If inhaled:

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

On skin contact:

| Wash thoroughly with soap and water.

On contact with eyes:

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

On ingestion:

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

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

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or 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, carbon dioxide, foam, dry powder

5.2. Special hazards arising from the substance or mixture

carbon monoxide, Carbon dioxide, nitrogen 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:

In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. 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.

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

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

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.

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

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

No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

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 against moisture. Protect from direct sunlight.

Protect from temperatures below: -10 °C

The product can separate / form phases below the limit temperature (reversible).

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Protect from temperatures above: 30 °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.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Components with occupational exposure limits

No occupational exposure limits known.

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 higher concentrations or long-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

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| | | |
|--|--|-----------------------------|
| Form: | suspension | |
| Colour: | off-white | |
| Odour: | faintly aromatic | |
| Odour threshold: | Not determined due to potential health hazard by inhalation. | |
| pH value: | approx. 5 - 7 (20 °C) (measured with the undiluted substance) | |
| crystallization temperature: | < -20 °C | |
| Boiling point: | approx. 100 °C | |
| Flash point: | No flash point - Measurement made up to the boiling point. | (DIN EN 22719; ISO 2719) |
| Evaporation rate: | not applicable | |
| Flammability: | No dangerous quantities of flammable gases will be produced by contact with water. | (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: | approx. 325 °C | |
| Vapour pressure: | approx. 23 hPa (20 °C) | |
| Density: | Information applies to the solvent. approx. 1.13 g/cm ³ (20 °C) | |
| Relative density: | approx. 1.13 (20 °C) | |
| Relative vapour density (air): | not applicable | |
| Solubility in water: | dispersible | |
| <i>Information on: 1,1-dimethylpiperidinium chloride</i> | | |
| <i>Partitioning coefficient n-octanol/water (log Kow):</i> | -3.55 (pH value: 7) | |
| <i>Information on: prohexadione calcium</i> | | |

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Partitioning coefficient n-octanol/water (log Kow): -2.9
(20 °C)

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Viscosity, dynamic: approx. 151 mPa.s (OECD 114)
(20 °C, 100 1/s)

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

Fire promoting properties: not fire-propagating (UN Test O.2 (oxidizing liquids))

9.2. Other information

Other Information:

If necessary, information on other physical and chemical parameters is indicated in this section.

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 MSDS section 7 - Handling and storage.

10.5. Incompatible materials

Substances to avoid:

strong oxidizing agents, strong bases, 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:

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation. Of moderate toxicity after single ingestion.

Experimental/calculated data:

LD50 rat (oral): > 500 - < 2,000 mg/kg (OECD Guideline 401)

LC50 rat (by inhalation): > 3.21 mg/l (OECD Guideline 403)

No mortality was observed. Highest concentration available for testing. An aerosol with respirable particles was tested.

LD50 rat (dermal): > 4,000 mg/kg (OECD Guideline 402)

Irritation

Assessment of irritating effects:

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

Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (OECD Guideline 404)

Serious eye damage/irritation rabbit: Irritant. (OECD Guideline 405)

Respiratory/Skin sensitization

Assessment of sensitization:

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. There is no evidence of a skin-sensitizing potential.

Experimental/calculated data:

modified Buehler test guinea pig: 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. Mutagenicity tests revealed no genotoxic potential.

Carcinogenicity

Assessment of carcinogenicity:

The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies gave no indication of a carcinogenic effect.

Reproductive toxicity

Assessment of reproduction toxicity:

The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

Developmental toxicity

Assessment of teratogenicity:

The product has not been tested. The statement has been derived from the properties of the individual components. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

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: Ammonium nitrate

Assessment of repeated dose toxicity:

Repeated oral exposure to large quantities may affect certain organs. 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.

Other relevant toxicity information

Misuse can be harmful to health.

SECTION 12: Ecological Information

12.1. Toxicity

Assessment of aquatic toxicity:

| There is a high probability that the product is not acutely harmful to aquatic organisms.

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) > 100 mg/l, *Oncorhynchus mykiss* (OECD 203; ISO 7346; 92/69/EEC, C.1, static)

Aquatic invertebrates:

EC50 (48 h) > 100 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

Aquatic plants:

EC50 (7 d) 36.7 mg/l (growth rate), *Lemna gibba* (OECD guideline 221)

No observed effect concentration (7 d) 2.1 mg/l (growth rate), *Lemna gibba* (OECD guideline 221)

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: 1,1-dimethylpiperidinium chloride**Assessment biodegradation and elimination (H₂O):*

Easily eliminated from water.

*Information on: prohexadione calcium**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: 1,1-dimethylpiperidinium chloride**Bioaccumulation potential:*

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

*Information on: prohexadione calcium**Bioaccumulation potential:*

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

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: 1,1-dimethylpiperidinium chloride; mepiquat chloride

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.

Information on: prohexadione calcium

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.

SECTION 14: Transport Information

Land transport

ADR

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Not classified as a dangerous good under transport regulations

UN number: Not applicable
UN proper shipping name: Not applicable
Transport hazard class(es): Not applicable
Packing group: Not applicable
Environmental hazards: Not applicable
Special precautions for user: None known

RID

Not classified as a dangerous good under transport regulations

UN number: Not applicable
UN proper shipping name: Not applicable
Transport hazard class(es): Not applicable
Packing group: Not applicable
Environmental hazards: Not applicable
Special precautions for user: None known

Inland waterway transport**ADN**

Not classified as a dangerous good under transport regulations

UN number: Not applicable
UN proper shipping name: Not applicable
Transport hazard class(es): Not applicable
Packing group: Not applicable
Environmental hazards: Not applicable
Special precautions for user: None known

Transport in inland waterway vessel

Not evaluated

Sea transport**IMDG**

Not classified as a dangerous good under transport regulations

UN number: Not applicable
UN proper shipping name: Not applicable
Transport hazard class(es): Not applicable
Packing group: Not applicable
Environmental hazards: Not applicable
Special precautions for user: None known

Air transport

IATA/ICAO

| | |
|------------------------------|--|
| | Not classified as a dangerous good under transport regulations |
| UN number: | Not applicable |
| UN proper shipping name: | Not applicable |
| Transport hazard class(es): | Not applicable |
| Packing group: | Not applicable |
| Environmental hazards: | Not applicable |
| 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 |
| Shipment approved: | Not evaluated |
| Pollution name: | Not evaluated |
| Pollution category: | Not evaluated |
| Ship Type: | Not evaluated |

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, 58

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).

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 |
| Eye Dam./Irrit. | Serious eye damage/eye irritation |
| Aquatic Chronic | Hazardous to the aquatic environment - chronic |
| Ox. Sol. | Oxidising solids |
| H302 | Harmful if swallowed. |
| H319 | Causes serious eye irritation. |
| EUH401 | To avoid risks to human health and the environment, comply with the instructions for use. |
| H412 | Harmful to aquatic life with long lasting effects. |
| H272 | May intensify fire; oxidizer. |

If you have any queries relating to this MSDS, its contents or any other product safety related questions, please write to the following e-mail address: product-safety-north@basf.com

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.