

# 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: 11.03.2016

Version: 6.1

Product: **ACROBAT CU 73.2% WP**

(ID no. 30652384/SDS\_CPA\_EU/EN)

Date of print 12.03.2016

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

### 1.1. Product identifier

## ACROBAT CU 73.2% WP

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

Relevant identified uses: crop protection product, fungicide

### 1.3. Details of the supplier of the safety data sheet

Company:

BASF 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

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

Acute Tox. 4 (Inhalation - dust)

Acute Tox. 4 (oral)

Aquatic Acute 1

Aquatic Chronic 1

H332, H302, H400, H410

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:

Warning

Hazard Statement:

H332	Harmful if inhaled.
H302	Harmful if swallowed.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Statement:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.

Precautionary Statements (Prevention):

P271	Use only outdoors or in a well-ventilated area.
P261	Avoid breathing dust.
P270	Do not eat, drink or smoke when using this product.
P264	Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P330	Rinse mouth.
P391	Collect spillage.

Precautionary Statements (Disposal):

P501	Dispose of contents/container to hazardous or special waste collection point.
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**According to Regulation (EC) No 1272/2008 [CLP]****Hazard determining component(s) for labelling: DIMETHOMORPH, COPPER OXYCHLORIDE**

### 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.

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## SECTION 3: Composition/Information on Ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Chemical nature

crop protection product, fungicide, Wettable powder (WP)

Hazardous ingredients (GHS)

according to Regulation (EC) No. 1272/2008

Copper chloride oxide

Content (W/W): 68.2 %

CAS Number: 1332-40-7

EC-Number: 215-572-9

Acute Tox. 4 (Inhalation - dust)

Acute Tox. 4 (oral)

Aquatic Acute 1

Aquatic Chronic 1

H332, H302, H400, H410

dimethomorph (ISO); 4-(3-(4-chlorophenyl)-3-(3,4-dimethoxyphenyl)acryloyl)morpholine

Content (W/W): 6 %

CAS Number: 110488-70-5

EC-Number: 404-200-2

Aquatic Chronic 2

H411

| Kaolin

| Content (W/W): < 20 %

| CAS Number: 1332-58-7

| EC-Number: 310-194-1

Calcium carbonate

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Content (W/W): < 3 %  
CAS Number: 471-34-1  
EC-Number: 207-439-9  
REACH registration number: 01-  
2119486795-18

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

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.

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 important symptoms and effects are so far not known.

### 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:  
dry powder, foam, water spray

Unsuitable extinguishing media for safety reasons:  
carbon dioxide

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

carbon monoxide, Carbon dioxide, hydrogen chloride, nitrogen oxides, organochloric compounds  
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.

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## 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. Avoid dust formation.

### 6.2. Environmental precautions

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

### 6.3. Methods and material for containment and cleaning up

For small amounts: Contain with dust binding material and dispose of.

For large amounts: Sweep/shovel up.

Avoid raising dust. Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Wear suitable protective equipment.

### 6.4. Reference to other sections

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

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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:

Avoid dust formation. Dust can form an explosive 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: Protect against moisture. Keep away from heat. Protect from direct sunlight.

Storage stability:  
Storage duration: 24 Months

### 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

471-34-1: Calcium carbonate  
1332-40-7: copper chloride oxide  
1332-58-7: Kaolin

### 8.2. Exposure controls

#### Personal protective equipment

Respiratory protection:

Suitable respiratory protection for higher concentrations or long-term effect: Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)

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.

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## SECTION 9: Physical and Chemical Properties

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

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Form:	powder
Colour:	light green
Odour:	of chlorine, slight odour
Odour threshold:	Not determined since harmful by inhalation.
pH value:	approx. 5 - 7 (deionized water, 1 %(m), 20 °C) (as a dispersion)
Melting temperature:	approx. 125 - 149 °C The data given are those of the active ingredient.
Boiling range:	The product has not been tested.
Flash point:	not applicable, the product is a solid
Evaporation rate:	not applicable
Flammability:	not highly flammable (Directive 92/69/EEC, A.10)
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.
Vapour pressure:	The product has not been tested.
Relative vapour density (air):	not applicable
Solubility in water:	dispersible
<i>Information on: dimethomorph (ISO); 4-(3-(4-chlorophenyl)-3-(3,4-dimethoxyphenyl)acryloyl)morpholine</i>	
<i>Partitioning coefficient n-octanol/water (log Kow): 2.63 - 2.73 (20 °C)</i>	
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Self ignition:	not self-igniting
Thermal decomposition:	135 °C, 40 kJ/kg, (DSC (OECD 113)) 300 °C, 110 kJ/kg, (DSC (OECD 113)) 415 °C, 70 kJ/kg, (DSC (OECD 113)) Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.

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Viscosity, dynamic:

not applicable, the product is a solid

Explosion hazard: not explosive

(Directive 92/69/EEC, A.14)

Fire promoting properties: not fire-propagating

(Directive 92/69/EEC, A.17)

## 9.2. Other information

Bulk density: 590 - 740 kg/m<sup>3</sup>

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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.

### 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.

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## 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. Of moderate toxicity after short-term inhalation.

Experimental/calculated data:

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

LC50 rat (by inhalation): > 3.35 mg/l 4 h (OECD Guideline 403)



Tested as dust aerosol.

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

#### Irritation

Assessment of irritating effects:

Not irritating to the skin. Not irritating to the eyes.

Experimental/calculated data:

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

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

#### Respiratory/Skin sensitization

Assessment of sensitization:

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.

*Information on: copper chloride oxide*

*Assessment of mutagenicity:*

*Results from a number of mutagenicity studies with microorganisms, mammalian cell culture and mammals are available. Taking into account all of the information, there is no indication that the substance is mutagenic.*

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

#### 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: copper chloride oxide**Assessment of repeated dose toxicity:*

*Adaptive effects were observed after repeated exposure in animal studies. The data on toxicology refer to the active ingredient.*

**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.

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**SECTION 12: Ecological Information****12.1. Toxicity****Assessment of aquatic toxicity:**

Very toxic to aquatic life with long lasting effects.

**Toxicity to fish:**

LC50 (96 h) 13.3 mg/l, *Oncorhynchus mykiss* (OECD 203; ISO 7346; 92/69/EEC, C.1, static)

**Aquatic invertebrates:**

EC50 (48 h) 96.5 mg/l, *Daphnia magna* (OECD Guideline 202, part 1)

Aquatic plants:

EC50 (72 h) 0.192 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static)

EC10 (72 h) 0.0706 mg/l (biomass), Pseudokirchneriella subcapitata (OECD Guideline 201, static)

## 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: Copper chloride oxide*

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

*Not readily biodegradable (by OECD criteria).*

*Information on: dimethomorph (ISO); 4-(3-(4-chlorophenyl)-3-(3,4-dimethoxyphenyl)acryloyl)morpholine*

*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: Copper chloride oxide*

*Bioaccumulation potential:*

*Significant accumulation in organisms is not to be expected.*

*Information on: dimethomorph (ISO); 4-(3-(4-chlorophenyl)-3-(3,4-dimethoxyphenyl)acryloyl)morpholine*

*Bioaccumulation potential:*

*No significant accumulation in organisms is expected as a result of the distribution coefficient of n-octanol/water (log Pow).*

## 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: Copper chloride oxide*

*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.*

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*Information on: dimethomorph (ISO); 4-(3-(4-chlorophenyl)-3-(3,4-dimethoxyphenyl)acryloyl)morpholine*

*Assessment transport between environmental compartments:*

*Volatility: The substance will not 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.*

## 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 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	UN3077
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains COPPER OXYCHLORIDE, DIMETHOMORPH)
Transport hazard class(es):	9, EHSM
Packing group:	III
Environmental hazards:	yes
Special precautions for	Tunnel code: E

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user:

RID

UN number UN3077  
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(contains COPPER OXYCHLORIDE, DIMETHOMORPH)  
Transport hazard class(es): 9, EHS  
Packing group: III  
Environmental hazards: yes  
Special precautions for user: None known

**Inland waterway transport**

ADN

UN number UN3077  
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(contains COPPER OXYCHLORIDE, DIMETHOMORPH)  
Transport hazard class(es): 9, EHS  
Packing group: III  
Environmental hazards: yes  
Special precautions for user: None known

**Transport in inland waterway vessel**

Not evaluated

**Sea transport**

IMDG

UN number: UN 3077  
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(contains COPPER OXYCHLORIDE, DIMETHOMORPH)  
Transport hazard class(es): 9, EHS  
Packing group: III  
Environmental hazards: yes  
Marine pollutant: YES  
Special precautions for user: None known

**Air transport**

IATA/ICAO

UN number: UN 3077

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UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(contains COPPER OXYCHLORIDE, DIMETHOMORPH)  
Transport hazard class(es): 9, EHS  
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  
Shipment approved: Not evaluated  
Pollution name: Not evaluated  
Pollution category: Not evaluated  
Ship Type: Not evaluated

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## **SECTION 15: Regulatory Information**

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

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

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

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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

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
Aquatic Acute	Hazardous to the aquatic environment - acute
Aquatic Chronic	Hazardous to the aquatic environment - chronic
H332	Harmful if inhaled.
H302	Harmful if swallowed.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

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