

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

### 1.1. Product identifier

**Name of product** Micropur Forte MF Pulver

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

#### Identified uses

#### Sector of uses [SU]

SU21 - Consumer uses: Private households (= general public = consumers)

#### Product categories [PC]

disinfectants

PC8 - Biocidal products (e.g. Disinfectants, pest control)

#### Recommended intended purpose(s)

Water disinfection

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

#### Manufacturer/distributor

Katadyn Produkte AG  
Pfäffikerstrasse 37, CH-8310 Kempthal  
Phone +41 44 839 21 11

#### Advice

This number is only available at office times.  
Phone +41 44 839 21 11  
E-mail (competent person):  
info@katadyn.ch

### 1.4. Emergency telephone number

#### Emergency advice

Swiss toxicological Information Center  
Phone 145 / +41 44 251 51 51

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## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to 67/548/EEC or 1999/45/EC

Xi; R36

N; R50/53

#### R-phrases

36 Irritating to eyes.

50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### Additional hints

The preparation is classified as hazardous according Directive 1999/45/EC.

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

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**Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]**

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
Eye Irrit. 2	H319	
Aquatic Acute 1	H400	
Aquatic Chronic 1	H410	

**Hazard statements for health hazards**

H319 Causes serious eye irritation.

**Hazard statements for environmental hazards**

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

**Additional hints**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.  
This mixture is classified as hazardous according to Regulation (EC) No 1272/2008 [GHS].

**2.2. Label elements**

**Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]**



GHS07



GHS09

**Signal word**

Warning

**Hazard statements for health hazards**

H319 Causes serious eye irritation.

**Hazard statements for environmental hazards**

H410 Very toxic to aquatic life with long lasting effects.

**Precautionary Statements**

**General**

P102 Keep out of reach of children.

**Prevention**

P264 Wash hands thoroughly after handling.

P273 Avoid release to the environment.

**Response**

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.

P391 Collect spillage.

**Disposal**

P501 Dispose of contents/container to ... .

P501 Contents / container hand over to an approved waste disposal facility.

**Hazardous ingredients for labeling**

calcium hypochlorite, Silver

**2.3. Other hazards**

No information available.

## SECTION 3: Composition/ information on ingredients

### 3.1. Substances

not applicable

### 3.2. Mixtures

#### Hazardous ingredients

CAS No	EC No	Name	[%]	Classification according to 67/548/EEC
10043-52-4	233-140-8	calcium chloride	< 0,1	Xi R36
7778-54-3	231-908-7	calcium hypochlorite	< 2,5	O R8; C R34; Xn R22; R31; N R50
1305-62-0	215-137-3	Calcium hydroxide	< 1,5	Xi R41
7440-22-4	231-131-3	Silver	< 0,1	--
7631-99-4	231-554-3	sodium nitrate	< 0,1	Xn R22; O R8

CAS No	EC No	Name	[%]	Classification according to Regulation (EC) No 1272/2008 [CLP/ GHS]
10043-52-4	233-140-8	calcium chloride	< 0,1	Eye Irrit. 2, H319
7778-54-3	231-908-7	calcium hypochlorite	< 2,5	Ox. Sol. 2, H272 / Acute Tox. 4, H302 / Skin Corr. 1B, H314 / Aquatic Acute 1, H400
7440-22-4	231-131-3	Silver	< 0,1	
7631-99-4	231-554-3	sodium nitrate	< 0,1	Ox. Sol. 3, H272 / Acute Tox. 4, H302

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

Remove contaminated clothing immediately and dispose it safely.

#### In case of inhalation

Ensure of fresh air.

If intensive inhalation of dust seek medical treatment immediately.

In the event of symptoms refer for medical treatment.

#### In case of skin contact

In case of contact with skin wash off with soap and water.

Consult a doctor if skin irritation persists.

#### In case of eye contact

In case of contact with eyes rinse with plenty of water carefully. In the event of persistent symptoms seek medical treatment.

#### In case of ingestion

Do not induce vomiting.

If swallowed seek medical advice immediately and show the doctor packing or label.

Rinse out mouth thoroughly with water.

Give plenty of water to drink in small sips.

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

No information available.

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

No information available.

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

Product does not burn, fire-extinguishing activities according to surrounding.

Foam

Dry powder

Carbon dioxide

Water spray jet

#### **Unsuitable extinguishing media**

Full water jet

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

Fire gas of organic material has to be classed invariably as respiratory poison.

Carbon monoxide (CO)

Carbon dioxide (CO<sub>2</sub>)

### **5.3. Advice for firefighters**

#### **Special protective equipment for fire-fighters**

Use breathing apparatus with independent air supply.

#### **Additional information**

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

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## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

#### **For non-emergency personnel**

Avoid contact with skin and eyes.

Ensure adequate ventilation.

Avoid dust formation.

Use personal protective clothing.

### **6.2. Environmental precautions**

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

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

Avoid dust formation.

Send in suitable containers for recovery or disposal.

Keep at a distance of water, take up dry, wear breathing apparatus and personal protective clothing.

Take up mechanically and send for disposal.

#### **Additional Information**

Informations for safe handling see chapter 7.

Informations for personal protective equipment see chapter 8.

Informations for disposal see chapter 13.

### **6.4. Reference to other sections**

No information available.

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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

Room ventilation with filter to remove the dust.  
Avoid the formation and deposition of dust.  
Use only in well-ventilated areas.  
Suitable industrial vacuum cleaners or central extraction equipment must be used for taking up dust.

#### General protective measures

Take the usual precautions when handling chemicals.  
Do not inhale dust.  
Avoid contact with the eyes.

#### Hygiene measures

Keep away from food and drink.  
Wash hands before breaks and after work.

#### Advice on protection against fire and explosion

Avoid sedimentation of dust.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

Keep in closed original container.

#### Advice on storage compatibility

Do not store together with food.  
Keep away from water.

#### Further information on storage conditions

Store only at temperature of 25°C minimum (=77°F).  
Protect from heat and direct solar radiation.  
Keep container dry, tightly closed and store at cool and aired place.  
Protect from wetness.

### 7.3. Specific end use(s)

No information available.

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## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Ingredients with occupational exposure limits to be monitored

CAS No	Name	Code	[mg/m <sup>3</sup> ]	[ppm]	Remark
1305-62-0	Calcium hydroxide	8 hours	5e		NIOSH

### 8.2. Exposure controls

#### Respiratory protection

Particle filter P2  
In case of dust formation wear micro dust mask.

#### Hand protection

Glove material specification [make/type, thickness, permeation time/life, wetting resistance]: nitrile rubber or butyle rubber; 0,5 mm; ca 480 Min.

#### Eye protection

safety goggles

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**Other protection measures**

Light protective clothing, antistatic

**Appropriate engineering controls**

Care for thorough room ventilation, if necessary provide local air ventilation.

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**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties****Appearance**

powder

**Colour**

whitish

**Odour**

odourless

**Odour threshold**

not determined

**Important health, safety and environmental information**

	Value	Temperature	at	Method	Remark
<b>pH value</b>	not determined				
<b>boiling point</b>	1440 °C				
<b>melting point</b>	801 °C				
<b>Flash point</b>	not applicable				
<b>Vapourisation rate</b>	not determined				
<b>Flammable (solid)</b>	not applicable				
<b>Flammability (gas)</b>	not determined				
<b>Ignition temperature</b>	not applicable				
<b>Self ignition temperature</b>					The product is not self-igniting.
<b>Lower explosion limit</b>	not determined				
<b>Upper explosion limit</b>	not determined				
<b>Vapour pressure</b>	not determined				
<b>Relative density</b>	not determined				
<b>Vapour density</b>	not determined				
<b>Solubility in water</b>					soluble
<b>Solubility/other</b>	not determined				
<b>Partition coefficient n-octanol/water (log P O/W)</b>	not determined				

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	Value	Temperature	at	Method	Remark
<b>Decomposition temperature</b>	not determined				
<b>Viscosity</b>	not determined				
<b>Oxidising properties</b> No information available.					
<b>Explosive properties</b> The product is not explosiv.					
<b>9.2. Other information</b> No information available.					

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No hazardous reactions known.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No information available.

### 10.4. Conditions to avoid

No decomposition if used as directed.

### 10.5. Incompatible materials

#### Materials to avoid

Reactions with strong acids.

Reactions with strong oxidising agents.

### 10.6. Hazardous decomposition products

No hazardous decomposition products known.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity/Irritability/Sensitization

	Value/Validation	Species	Method	Remark
<b>LD50 acute oral</b>	850 mg/kg	rat		Information concerns to main component.
<b>Irritability skin</b>	low irritant effect - not necessary to label			
<b>Irritability eye</b>	irritant			

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**Toxicity test (Additional information)**

Only moist product on skin corrosive (rabbit ).  
Substance has no mutagen activity ( Ames test ).

**Experiences made from practice**

Long-term irritations of eyes possible.

**Additional information**

The product was classified on the basis of the calculation procedure of the preparation directive (1999/45/EC).

No toxicological data available.

The declarations of toxicology refer to main component.

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**SECTION 12: Ecological information****12.1. Toxicity****Ecotoxicological effects**

	Value	Species	Method	Validation
<b>Fish</b>	No data available			
<b>Daphnia</b>	No data available			
<b>Algae</b>	No data available			

**12.2. Persistence and degradability**

**Biological degradability** No data available

**12.3. Bioaccumulative potential**

No information available.

**12.4. Mobility in soil**

No information available.

**12.5. Results of PBT and vPvB assessment**

No information available.

**12.6. Other adverse effects****General regulation**

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

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Ecological data are not available.

Do not allow uncontrolled leakage of product into the environment.

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**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Waste code No.**

16 05 07\*

**Name of waste**

discarded inorganic chemicals consisting of or containing dangerous substances

Wastes marked with an asterisk are considered to be hazardous waste pursuant to Directive 2008/98/EC on hazardous waste.



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**Recommendations for the product**

In accordance with regulations for special waste, must be taken to a special waste disposal.  
The waste disposal has to be proved.  
Dispose of as hazardous waste.

**Recommendations for packaging**

Uncontaminated packaging may be taken for recycling.  
Packaging that cannot be cleaned should be disposed of like the product.

**General information**

Partially emptied packaging must be taken to point of sale or to a special waste disposal. Dispose of empty containers as urban waste.

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**SECTION 14: Transport information**

	<b>ADR/RID</b>	<b>IMDG</b>	<b>IATA-DGR</b>
<b>14.1. UN number</b>	3077	3077	3077
<b>14.2. UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (calcium hypochlorite)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O. S. (calcium hypochlorite)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (calcium hypochlorite)
<b>14.3. Transport hazard class(es)</b>	9	9	9
<b>14.4. Packing group</b>	III	III	III
<b>14.5. Environmental hazards</b>	Yes	Yes	Yes

**14.6. Special precautions for user**

No information available.

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

No information available.

**Land and inland navigation transport ADR/RID**

Hazard label(s) 9

tunnel restriction code E

The product is not subject of the regulations ADR / RID in packaging < 5 L / < 5 kg in accordance with Special Provision 375.

**Marine transport IMDG**

MARINE POLLUTANT

The product is not subject of the regulations IMDG in packaging < 5 L / < 5 kg in accordance with section 2.10.2.7 IMDG.

**Air transport ICAO/IATA-DGR**

The product is not subject of the IATA regulations in packaging < 5 L / < 5 kg in accordance with Special Provision A197.

**Transport/further information**

Additional marking for environmentally hazardous (fish and tree) required.

## SECTION 15: Regulatory information

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

#### National regulations

**Water hazard class** 1 CH  
hazardous to waters, self-classification

### 15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

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## SECTION 16: Other information

### Recommended uses and restrictions

National and local regulations concerning chemicals shall be observed.

### Further information

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

### Wording of the R/H-phrases specified in chapter 3 (not the classification of the mixture!)

R 22 Harmful if swallowed.  
R 31 Contact with acids liberates toxic gas.  
R 34 Causes burns.  
R 36 Irritating to eyes.  
R 41 Risk of serious damage to eyes.  
R 50 Very toxic to aquatic organisms.  
R 8 Contact with combustible material may cause fire.

H272 May intensify fire; oxidiser.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H319 Causes serious eye irritation.  
H400 Very toxic to aquatic life.