

Micropur Forte MF Pulver

Print date 13.04.2023
Revision date 06.03.2023
Version 1.1 (en)
replaces version of 02.12.2014 (1.0)

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

1.1 Product identifier

Trade name/designation Micropur Forte MF Pulver

Hazard components

calcium hypochlorite, Silver

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

Sector of uses [SU]

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

Product Categories [PC]

disinfectants
PC8 Biocidal products

*** Use of the substance/mixture**

Disinfection and preservation of drinking water

1.3 Details of the supplier of the safety data sheet

Distribution Europe

Katadyn Deutschland GmbH
Hessenring 23
D-64546 Mörfelden-Walldorf
Department responsible for information:
This number is only available at office times.
Telephone +49 6105 45 67 89

Manufacturer / Distribution Switzerland

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

Department responsible for information:
This number is only available at office times.
Telephone +41 44 839 21 11

E-mail (competent person):
info@katadyn.ch

*** 1.4 Emergency telephone number**

Swiss toxicological Information Center 145
Europe: GBK GmbH +49 (0)6132-84463

*** SECTION 2: Hazards identification**

*** 2.1 Classification of the substance or mixture**

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

Skin Irrit. 2, H315

Eye Irrit. 2, H319

Aquatic Acute 1, H400

Aquatic Chronic 1, H410

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Hazard statements for health hazards

H315 Causes skin irritation.

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.

Remark

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

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

*** 2.2 Label elements**

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

Hazard components

calcium hypochlorite, Silver

Hazard pictograms



GHS07



GHS09

Signal word

Warning

Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H410 Very toxic to aquatic life with long lasting effects.

*

Precautionary statements

P102 Keep out of reach of children.

P273 Avoid release to the environment.

P302 + P352 IF ON SKIN: Wash with plenty of water.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P391 Collect spillage.

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

*

Special rules for supplemental label elements for certain mixtures

EUH206 Warning! Do not use together with other products. May release dangerous gases (chlorine).

2.3 Other hazards

No data available

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*** SECTION 3: Composition / information on ingredients**

*** 3.2 Mixtures**

Hazardous ingredients

CAS No.	EC No.	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
7778-54-3	231-908-7	calcium hypochlorite	< 2.5 weight-%	Ox. Sol. 2; H272 Acute Tox. 4 ; H302 Skin Corr. 1B; H314 Aquatic Acute 1; H400; EUH031	Skin Corr. 1B;H314: C>=5% Skin Irrit. 2;H315: 1%<=C<5% Eye Dam. 1;H318: 3%<=C<5% Eye Irrit. 2;H319: 0.5%<=C<3% M=10 (Aquatic Acute 1)
7440-22-4	231-131-3	Silver	< 1 weight-%	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	M=10 (Aquatic Acute 1) M=10 (Aquatic Chronic 1)

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Remove contaminated, saturated clothing immediately.

Following inhalation

Provide fresh air.

If intensive inhalation of dust seek medical treatment immediately.

In the event of symptoms refer for medical treatment.

Following skin contact

After contact with skin, wash immediately with plenty of water and soap.

In case of skin irritation, consult a physician.

After eye contact

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Following ingestion

Do NOT induce vomiting.

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

Rinse mouth thoroughly with water.

Let water be drunken in little sips (dilution effect).

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4.2 Most important symptoms and effects, both acute and delayed

No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Foam
Extinguishing powder
Carbon dioxide (CO₂)
Water spray jet

Unsuitable extinguishing media

Full water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Fire gas of organic material has to be classed invariably as respiratory poison.
Carbon monoxide
Carbon dioxide (CO₂)

5.3 Advice for firefighters

Special protective equipment for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

The product itself does not burn.
Co-ordinate fire-fighting measures to the fire surroundings.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Avoid contact with skin and eyes.
Provide adequate ventilation.
Avoid dust formation.
Use personal protection equipment.

6.2 Environmental precautions

Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

For containment

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.

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For cleaning up

Avoid dust formation.

6.4 Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

receptor hood for 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.
Avoid:
Dust deposits
Keep the packing dry and well sealed to prevent contamination and absorption of humidity.
Keep in a cool, well-ventilated place.
Take the usual precautions when handling chemicals.
Do not inhale dust.
Eye contact

Advices on general occupational hygiene

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

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep/Store only in original container.
Keep container tightly closed.

Materials to avoid

Do not store together with:
Food and feedingstuffs
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.
Protect from wetness.

7.3 Specific end use(s)

No data available

*** SECTION 8: Exposure controls/personal protection**

*** 8.1 Control parameters**

*** Occupational exposure limit values**

CAS No.	EC No.	Substance name	occupational exposure limit value
7440-22-4	231-131-3	Silver, metallic	0,1 [mg/m ³] 2000/39/EC

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

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CAS No.	EC No.	Substance name	occupational exposure limit value
	231-131-3	Silver (soluble compounds as Ag)	0,01 [mg/m ³] 2006/15/EC
1305-62-0	215-137-3	Calcium dihydroxide	1 Respirable fraction [mg/m ³] Short-term(mg/m ³) 4 Respirable fraction 2017/164/EU
1305-62-0	215-137-3	Calcium hydroxide	1 (1) [mg/m ³] Short-term(mg/m ³) 4 (1)(2) (1) Respirable fraction (2) 15 minutes average value (IE)
7440-22-4	231-131-3	Silver, metallic	0,1 [mg/m ³] (IE)
7440-22-4	231-131-3	Silver compounds, soluble	0,01 [mg/m ³] (IE)
1305-62-0	215-137-3	Calcium hydroxide	5 (1) 1 (1) [mg/m ³] (1) Inhalable fraction (2) Respirable fraction (UK)
7440-22-4	231-131-3	Silver, metallic	0,1 [mg/m ³] (UK)
7440-22-4	231-131-3	Silver compounds, soluble	0,01 [mg/m ³] (UK)

8.2 Exposure controls

Appropriate engineering controls

Technical measures to prevent exposure

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

Personal protection equipment

Eye/face protection

safety goggles

Hand protection

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

Body protection:

Light protective clothing, antistatic

Respiratory protection

Suitable respiratory protection apparatus:

Particle filter P2

In case of dust formation wear micro dust mask.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state

Powder

Colour

whitish

Odour

odourless

Safety relevant basis data

	Value	Method	Source, Remark
Odour threshold:	not determined		
Melting point/freezing point	Melting point 801 °C		
Boiling point or initial boiling point and boiling range	1440 °C		
flammability	not determined		
Lower and upper explosion limit	not determined		
Flash point	not determined		
Auto-ignition temperature			The product ist not self-igniting.
Decomposition temperature	not determined		
pH	in delivery state		not determined
Viscosity	not determined		
Solubility(ies)	Water solubility		soluble
Partition coefficient n-octanol/water (log value)	not determined		
Vapour pressure	not determined		
Density and/or relative density			not determined
Density and/or relative density	Bulk density 1.2 kg/m ³		
Relative vapour density	not determined		
particle characteristics	not determined		

9.2 Other information

Other safety characteristics

	Value	Method	Source, Remark
Explosive properties			The product is not explosiv.

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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 data available

10.4 Conditions to avoid

No decomposition if used as directed.

10.5 Incompatible materials

Reactions with strong acids.
Oxidising agent, strong

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Animal data

	Effective dose	Method, Evaluation	Source, Remark
Acute oral toxicity	850 mg/kg Species Rat		Data apply to the main component.
Acute dermal toxicity	not determined		
Acute inhalation toxicity	not determined		

Skin corrosion/irritation

Animal data

Result / Evaluation	Method	Source, Remark
slightly irritant but not relevant for classification.		

Serious eye damage/irritation

Animal data

Result / Evaluation	Method	Source, Remark
Irritant.		

Sensitisation to the respiratory tract

not determined

Skin sensitisation

not determined

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Germ cell mutagenicity

not determined

Carcinogenicity

not determined

Reproductive toxicity

not determined

STOT-single exposure

not determined

STOT-repeated exposure

not determined

Aspiration hazard

not determined

11.2 Information on other hazards

Symptoms related to the physical, chemical and toxicological characteristics

	Effective dose	Method,Evaluation	Source, Remark
Endocrine disrupting properties		No data available	

Other information

Only moist product on skin corrosive (rabbit).
Substance has no mutagen activity (Ames test).
Long-term irritations of eyes possible.
Toxicological data are not available.
The declarations of toxicology refer to main component.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

	Effective dose	Method,Evaluation	Source, Remark
Acute (short-term) fish toxicity			
Chronic (long-term) fish toxicity	not determined		
Acute (short-term) toxicity to crustacea			
Chronic (long-term) toxicity to aquatic invertebrate	not determined		
Acute (short-term) toxicity to algae and cyanobacteria			
Chronic (long-term) toxicity to aquatic algae and cyanobacteria	not determined		
Toxicity to other aquatic plants/organisms	not determined		
Toxicity to microorganisms	not determined		

12.2 Persistence and degradability

	Value	Method	Source, Remark
Biodegradation			No data available

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12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

Additional ecotoxicological information

Additional information

Do not discharge into the drains/surface waters/groundwater.
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Ecological dates are not available.
Do not allow uncontrolled discharge of product into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste codes/waste designations according to EWC/AVV

Waste code product	Waste name
160507 *	discarded inorganic chemicals consisting of or containing hazardous substances

Appropriate disposal / Product

In accordance with regulations for special waste, must be taken to a special waste disposal.
Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Appropriate disposal / Package

Completely emptied packages can be recycled.
Handle contaminated packages in the same way as the substance itself.

Remark

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

*** SECTION 14: Transport information**

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	UN 3077	UN 3077	UN 3077
14.2 UN proper shipping name	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)
14.3 Transport hazard class(es)	9	9	9
14.4 Packing group	III	III	III
14.5 Environmental hazards	ENVIRONMENTALLY HAZARDOUS	ENVIRONMENTALLY HAZARDOUS	ENVIRONMENTALLY HAZARDOUS

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14.6 Special precautions for user

No data available

14.7 Maritime transport in bulk according to IMO instruments

No data available

All transport carriers

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

Land transport (ADR/RID)

UN number or ID number	UN 3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (calcium hypochlorite)
Transport hazard class(es)	9
Hazard label(s)	9
Classification code	M7
Packing group	III
Environmental hazards	ENVIRONMENTALLY HAZARDOUS
Limited quantity (LQ)	5 kg
Special provisions	274, 335, 375, 601
Tunnel restriction code	-

Remark

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

Sea transport (IMDG)

UN number or ID number	UN 3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (calcium hypochlorite)
Transport hazard class(es)	9
Packing group	III
Environmental hazards	ENVIRONMENTALLY HAZARDOUS
Limited quantity (LQ)	5 kg
Marine pollutant	No
EmS	F-A, S-F

Remark

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-TI / IATA-DGR)

UN number or ID number	UN 3077
UN proper shipping name	Environmentally hazardous substance, solid, n.o.s. (calcium hypochlorite)
Transport hazard class(es)	9
Packing group	III

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Environmental hazards ENVIRONMENTALLY HAZARDOUS

Remark

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

*** SECTION 15: Regulatory information**

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

*** Other regulations (EU)**

*** Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive] VOC**

VOC content, ready-to-use condition 0 g/L

VOC content, delivery state 0 %

VOC-value 0 g/L

15.2 Chemical Safety Assessment

National regulations

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

SECTION 16: Other information

Additional information

National and local regulations concerning chemicals shall be observed.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

Relevant H- and EUH-phrases (Number and full text)

H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Indication of changes

* Data changed compared with the previous version