

**Micropur Forte MF 1T**

Print date 13.04.2023  
Revision date 06.03.2023  
Version 1.3 (en)  
replaces version of 14.08.2014 (1.2)

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

**1.1 Product identifier**

**Trade name/designation** Micropur Forte MF 1T

**Hazard components**

troclosene sodium, 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 Kemptthal  
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

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Eye Irrit. 2, H319

Aquatic Chronic 1, H410

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**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.

**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**

troclosene sodium, Silver

**Hazard pictograms**



GHS07



GHS09

**Signal word**

Warning

**Hazard statements**

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.

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.

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

\* **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
124-04-9	204-673-3	adipic acid	25 - 50 weight-%	Eye Irrit. 2; H319	
497-19-8	207-838-8	sodium carbonate	20 - 25 weight-%	Eye Irrit. 2; H319	

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

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CAS No.	EC No.	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
2893-78-9	220-767-7	troclosene sodium	< 10 weight-%	Ox. Sol. 2; H272 Acute Tox. 4 ; H302 Eye Irrit. 2; H319 STOT SE 3; H335 Aquatic Acute 1; H400 Aquatic Chronic 1; H410; EUH031	STOT SE 3;H335: C>=10% EUH031: C>=10% *
7440-22-4	231-131-3	Silver	< 0.2 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.

Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

#### Following inhalation

Remove casualty to fresh air and keep warm and at rest.

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.

### 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

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media**

alcohol resistant foam  
Extinguishing powder  
Carbon dioxide (CO<sub>2</sub>)  
Water spray jet

**Unsuitable extinguishing media**

Full water jet

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

**Hazardous combustion products**

In case of fire formation of dangerous gases possible.  
Hydrogen chloride (HCl)  
Hydrogen cyanide (hydrocyanic acid)  
Chlorine (Cl<sub>2</sub>)

### 5.3 Advice for firefighters

**Special protective equipment for firefighters**

In case of fire: Wear self-contained breathing apparatus.  
Wear full chemical protective clothing.

### Additional information

Do not inhale explosion and combustion gases.  
Use water spray jet to protect personnel and to cool endangered containers.  
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.  
Keep people away and stay on the upwind side.  
Use personal protection equipment.

### 6.2 Environmental precautions

Inform responsible authority with penetration in waters or drains.  
Do not allow to enter into surface water or drains.

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

**For containment**

Ensure adequate ventilation.  
After taking up the material dispose according to regulation.  
Take up mechanically and send for disposal.

### 6.4 Reference to other sections

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

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Protective measures

Avoid contact with skin and eyes.  
Do not breathe dust.  
Keep container tightly closed.  
Avoid the formation and deposition of dust.  
Use only in well-ventilated areas.  
Keep away from sources of ignition - No smoking.  
The product is not:  
Combustible  
Keep the packing dry and well sealed to prevent contamination and absorption of humidity.  
Keep in a cool, well-ventilated place.  
Avoid:  
Eye contact  
Skin contact  
Take the usual precautions when handling chemicals.  
Ensure adequate ventilation.

#### Advices on general occupational hygiene

Remove contaminated, saturated clothing immediately.  
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.

#### Storage class

11 Combustible solids that cannot be assigned to any of the above storage classes

#### Materials to avoid

Do not store together with:  
Acid  
Food and feedingstuffs

### 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 <sup>3</sup> ] 2000/39/EC
	231-131-3	Silver (soluble compounds as Ag)	0,01 [mg/m <sup>3</sup> ] 2006/15/EC
124-04-9	204-673-3	Adipic acid	5 [mg/m <sup>3</sup> ] (IE)
7440-22-4	231-131-3	Silver, metallic	0,1 [mg/m <sup>3</sup> ] (IE)

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CAS No.	EC No.	Substance name	occupational exposure limit value
7440-22-4	231-131-3	Silver compounds, soluble	0,01 [mg/m <sup>3</sup> ] (IE)
7440-22-4	231-131-3	Silver, metallic	0,1 [mg/m <sup>3</sup> ] (UK)
7440-22-4	231-131-3	Silver compounds, soluble	0,01 [mg/m <sup>3</sup> ] (UK)

## 8.2 Exposure controls

### Appropriate engineering controls

#### Technical measures to prevent exposure

Avoid the formation and deposition of dust.

No further data, see item 7.

Avoid contact with skin and eyes.

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

### Personal protection equipment

#### Eye/face protection

No special measures necessary if used correctly.

#### Hand protection

Glove material specification [make/type, thickness, permeation time/life, wetting resistance]: butyle rubber, 0,7mm, 480 Min.

Please observe the glove manufacturer's instructions on permeability and ruptur times as well as the specific workplace conditions.

#### Body protection:

No special measures necessary if used correctly.

#### Respiratory protection

In case of dust formation wear micro dust mask.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Physical state

Tablets

#### Colour

white

#### Odour

characteristic  
stinging

#### Safety relevant basis data

	Value	Method	Source, Remark
Odour threshold:	not determined		
Melting point/freezing point	Melting point 133 °C		

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	Value	Method	Source, Remark
Boiling point or initial boiling point and boiling range	not determined		
flammability	not determined		
Lower and upper explosion limit	not determined		
Flash point	not determined		
Auto-ignition temperature			The product ist not self-igniting.
Auto-ignition temperature			No data available.
Decomposition temperature	not determined		
pH	in delivery state 5.97 (20°C) Concentration 100 g/L		emulsion in water
Viscosity	not determined		
Solubility(ies)	Water solubility		easily soluble
Partition coefficient n-octanol/water (log value)	not determined		
Vapour pressure	not determined		
Density and/or relative density	1.66 g/cm <sup>3</sup> (20°C)		
Density and/or relative density	Bulk density 0.85 kg/m <sup>3</sup>		
Relative vapour density	not determined		
particle characteristics	not determined		

**9.2 Other information**

**Other safety characteristics**

	Value	Method	Source, Remark
Solid content	100 %		
Explosive properties			The product is not explosiv.

**SECTION 10: Stability and reactivity**

**10.1 Reactivity**

No data available

**10.2 Chemical stability**

No data available

**10.3 Possibility of hazardous reactions**

No data available

**10.4 Conditions to avoid**

No decomposition if used as directed.

**10.5 Incompatible materials**

Acid  
 Formation of:  
 Chlorine

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**10.6 Hazardous decomposition products**

In case of fire formation of dangerous gases possible.

Hydrochloric gas  
Chlorine  
Chlorine compounds

**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	approx. 1400 mg/kg Species Rat		
Acute dermal toxicity	> 2000 mg/kg Species Rabbit		
Acute inhalation toxicity	not determined		

**Skin corrosion/irritation**

**Animal data**

Result / Evaluation	Method	Source, Remark
Irritant to skin and mucous membranes.		

**Serious eye damage/irritation**

**Animal data**

Result / Evaluation	Method	Source, Remark
Irritant.		

**Sensitisation to the respiratory tract**

not determined

**Skin sensitisation**

**Animal data**

Result / Evaluation	Dose / Concentration	Method	Source, Remark
not sensitising.			

**Germ cell mutagenicity**

not determined

**Carcinogenicity**

not determined

**Reproductive toxicity**

not determined

**STOT-single exposure**

not determined

**STOT-repeated exposure**

not determined



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**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**

Toxicol dates refer to base substance.  
 The declarations of toxicology refer to main component.  
 The product has not been tested. The information is derived from the properties of the individual components.

**SECTION 12: Ecological information**

**12.1 Toxicity**

**Aquatic toxicity**

	Effective dose	Method,Evaluation	Source, Remark
Acute (short-term) fish toxicity	LC50: 0.13 mg/L Species Oncorhynchus mykiss (Rainbow trout) Test duration 96 h  CAS No.2893-78-9 troclosene sodium LC50: 0.38 mg/L Species Oncorhynchus mykiss (Rainbow trout) Test duration 96 h		
Chronic (long-term) fish toxicity	not determined		
Acute (short-term) toxicity to crustacea	EC50 0.28 mg/L Species Daphnia magna (Big water flea) Test duration 48 h  CAS No.2893-78-9 troclosene sodium EC50 < 1 mg/L Species Daphnia magna (Big water flea) Test duration 48 h		
Chronic (long-term) toxicity to aquatic invertebrate	not determined		
Acute (short-term) toxicity to algae and cyanobacteria	not determined		
Chronic (long-term) toxicity to aquatic algae and cyanobacteria	not determined		
Toxicity to other aquatic plants/organisms	not determined		
Toxicity to microorganisms	not determined		

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**12.2 Persistence and degradability**

No data available

**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.  
Risk of harmful effect to microorganisms in sewage processing plants.  
Because of damage to water organism do not fill in presurge.  
Ecological dates are not available.  
Do not allow uncontrolled discharge of product into the environment.  
Harmfull to fishes and bacteria.  
The information about ecology refers to the active component.

**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.

**Appropriate disposal / Package**

Non-contaminated packages may be recycled.  
Handle contaminated packages in the same way as the substance itself.

**Remark**

Collect the waste separately.  
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)
<b>14.1 UN number or ID number</b>	UN 3077	UN 3077	UN 3077
<b>14.2 UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (troclosene sodium)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (troclosene sodium)	Environmentally hazardous substance, solid, n.o.s. (troclosene sodium)

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	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
<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>	ENVIRONMENTALLY HAZARDOUS	ENVIRONMENTALLY HAZARDOUS Marine pollutant	ENVIRONMENTALLY HAZARDOUS

**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. (troclosene sodium)  
 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. (troclosene sodium)  
 Transport hazard class(es) 9  
 Packing group III  
 Environmental hazards ENVIRONMENTALLY HAZARDOUS  
 Limited quantity (LQ) 5 kg  
 Marine pollutant Yes.  
 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.

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**Air transport (ICAO-TI / IATA-DGR)**

UN number or ID number UN 3077  
UN proper shipping name Environmentally hazardous substance, solid, n.o.s. (troclosene sodium)  
Transport hazard class(es) 9  
Packing group III  
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.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
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