

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

schülke 

mikrozid AF liquid -INT-

1 l FL

No Change Service!

Version 03.01

Revision Date 20.06.2013

Print Date 13.08.2013

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : mikrozid AF liquid -INT- 1 l FL

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

Use of the Sub-
stance/Mixture : Disinfectants and general biocidal products

1.3 Details of the supplier of the safety data sheet

Producer/Supplier : Schülke & Mayr GmbH
Robert-Koch-Str. 2
22851 Norderstedt
Germany
Telephone: +4940521000
Telefax: +494052100318
mail@schuelke.com
www.schuelke.com

Contact person : Application Department HI
+49 (0)40/ 521 00 544 (Schülke UK +44 114 254 3500)
pab@schuelke.com

1.4 Emergency telephone number

Emergency telephone num-
ber : UK Poisons Emergency number: 0870 600 6266
Emergency telephone num-
ber : +49 (0)40 / 52 100 -0

2. Hazards identification

2.1 Classification of the substance or mixture

Classification (67/548/EEC, 1999/45/EC)

Irritant

R10: Flammable.
R41: Risk of serious damage to eyes.
R67: Vapours may cause drowsiness and dizziness.

2.2 Label elements

Labelling according to EC Directives (1999/45/EC)

Hazard pictograms :



Irritant

R-phrases(s)

: R10
R41

Flammable.
Risk of serious damage to eyes.

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	R67	Vapours may cause drowsiness and dizziness.
S-phrases(s)	: S 2 S23 S26	Keep out of the reach of children. Do not breathe spray. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S35	This material and its container must be disposed of in a safe way.
	S39	Wear eye/face protection.
	S51	Use only in well-ventilated areas.

The product is classified and labelled in accordance with EC directives or respective national laws.

Special labelling of certain mixtures : Labelling according to Regulation (EC) No. 648/2004: (perfumes)

Further information : Use biocides safely. Always read the label and product information before use.

2.3 Other hazards

Vapours may form explosive mixtures with air.

3. Composition/information on ingredients

3.2 Mixtures

Chemical nature : Solution of the following substances with harmless additives.

Hazardous components

Chemical Name	Index-Number CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Propan-1-ol	603-003-00-0 71-23-8 200-746-9 01- 2119486761- 29-XXXX	F; R11 Xi; R41 R67	Flam. Liq. 2; H225 Eye Dam. 1; H318 STOT SE 3; H336	35 %
Ethanol	603-002-00-5 64-17-5 200-578-6 01- 2119457610- 43-XXXX	F; R11	Flam. Liq. 2; H225 Eye Irrit. 2; H319	25 %

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

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4. First aid measures**4.1 Description of first aid measures**

- General advice : Take off all contaminated clothing immediately.
- If inhaled : Move to fresh air.
If symptoms persist, call a physician.
- In case of skin contact : Wash off with plenty of water.
If symptoms persist, call a physician.
- In case of eye contact : In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
If eye irritation persists, consult a specialist.
- If swallowed : Do NOT induce vomiting.
Clean mouth with water and drink afterwards plenty of water.
Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : Treat symptomatically.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : For specialist advice physicians should contact the Poisons Information Service.

5. Firefighting measures**5.1 Extinguishing media**

- Suitable extinguishing media : Dry powder
Alcohol-resistant foam
Carbon dioxide (CO₂)
Water spray jet
- Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

- Specific hazards during fire-fighting : Cool closed containers exposed to fire with water spray.

5.3 Advice for firefighters

- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

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Specific risk from the substance or the product itself, its combustion products or evolved gases : Vapours may form explosive mixtures with air.

6. Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Personal precautions : Ensure adequate ventilation.
Remove all sources of ignition.

6.2 Environmental precautions

Environmental precautions : Avoid subsoil penetration.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

6.4 Reference to other sections

See chapter 8 + 13

7. Handling and storage**7.1 Precautions for safe handling**

Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms.
Use only in well-ventilated areas.

Advice on protection against fire and explosion : Keep away from sources of ignition - No smoking.
The hot product gives off combustible vapours.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store at room temperature in the original container.
Do not store at temperatures above 30°C.

Further information on storage conditions : Keep container tightly closed.
Keep away from direct sunlight.
Recommended storage temperature: 15 - 25°C

Advice on common storage : Keep away from food and drink.
Do not store together with oxidising agents.

7.3 Specific end use(s)

none

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8. Exposure controls/personal protection**8.1 Control parameters**

Components	CAS-No.	Value	Control parameters	Basis
Ethanol	64-17-5	Permissible exposure limit	500 ppm 960 mg/m ³	TRGS 900
Ethanol	64-17-5	Ceiling Limit Value	1.000 ppm 1.920 mg/m ³	TRGS 900
Ethanol	64-17-5	Permissible exposure limit	1.000 ppm 1.900 mg/m ³	OSHA
Propan-1-ol	71-23-8	Permissible exposure limit	200 ppm 500 mg/m ³	OSHA

DNEL

Propan-1-ol

: End Use: Workers
 Exposure routes: Skin contact
 Potential health effects: Long-term exposure, Systemic effects
 Value: 136 mg/kg

End Use: Workers
 Exposure routes: Inhalation
 Potential health effects: Long-term exposure, Systemic effects
 Value: 268 mg/kg

End Use: Workers
 Exposure routes: Inhalation
 Potential health effects: Short-term exposure, Systemic effects
 Value: 1723 mg/kg

PNEC

Propan-1-ol

: Fresh water
 Value: 10 mg/l

Marine water
 Value: 1 mg/l

Soil
 Value: 2,2 mg/l

Marine sediment
 Value: 2,28 mg/kg

Fresh water sediment
 Value: 22,8 mg/kg

Effects on waste water treatment plants
 Value: 86 mg/l

Intermittent use/release
 Value: 10 mg/l

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II**8.2 Exposure controls****Personal protective equipment**

- Respiratory protection : No personal respiratory protective equipment normally required.
If the occupational exposure limits cannot be met, in exceptional cases suitable respiratory equipment should be worn only for a short period of time.
Recommended Filter type:
A-P2 or ABEK-P2
Respiratory protection complying with EN 141.
- Hand protection : Splash protection: disposable nitrile rubber gloves e.g. Dermatril (layer thickness: 0,11 mm) made by KCL or gloves from other manufacturers offering the same protection.
Prolonged contact: Nitrile rubber gloves e.g. Camatril (>120 Min., layer thickness: 0,40 mm) or butyl rubber gloves e.g. Butoject (>480 Min., layer thickness: 0,70 mm) made by KCL or gloves from other manufacturers offering the same protection.
- Eye protection : Tightly fitting safety goggles
- Hygiene measures : Keep away from food and drink.
- Protective measures : Avoid contact with skin and eyes.

Environmental exposure controls

- General advice : Avoid subsoil penetration.

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

- Appearance : liquid
- Colour : colourless
- Odour : alcohol-like
- Flash point : 27 °C, DIN 51755 Part 1
- Ignition temperature : Propan-1-ol: 412 °C
Ethanol: > 360 °C
- Lower explosion limit : Propan-1-ol: 2,1 %(V)
Ethanol: 3,1 %(V)
- Upper explosion limit : Propan-1-ol: 17,5 %(V)
Ethanol: 15 %(V)
- Flammability : Sustains combustion
- Explosive properties : no data available
- Oxidizing properties : no data available
- Auto-ignition temperature : no data available
- pH : ca. 6, 20 °C, (undiluted)
- Melting point/freezing point : < -5 °C
- Decomposition temperature : no data available

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Boiling point/boiling range	: ca. 80 °C
Vapour pressure	: ca. 50 hPa, 20 °C
Density	: ca. 0,89 g/cm ³ , 20 °C
Water solubility	: 20 °C, in all proportions
Partition coefficient: n-octanol/water	: not applicable
Flow time	: < 15 s, 20 °C, DIN 53211
Relative vapour density	: no data available
Evaporation rate	: no data available

9.2 Other information

None known.

10. Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Strong acids and oxidizing agents

10.6 Hazardous decomposition products

Decomposition products : No decomposition if stored and applied as directed.

11. Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity

Propan-1-ol : LD50: > 2000 mg/kg, rat

Ethanol : LD50: 8300 mg/kg, mouse

Acute inhalation toxicity

Propan-1-ol : LC50: 33,8 mg/l, rat

Ethanol : LC50: 39 mg/l, 4 h, mouse

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Acute dermal toxicity

Propan-1-ol : LD50: > 4000 mg/kg, rabbit

Ethanol : LD50: 20000 mg/kg, rabbit

Skin irritation

Propan-1-ol : Result: No skin irritation

Ethanol : rabbit, Result: No skin irritation

Eye irritation

Propan-1-ol : Result: Risk of serious damage to eyes.

Ethanol : rabbit, Result: Mild eye irritation

Sensitisation

Propan-1-ol : guinea pig, Result: Does not cause skin sensitisation., Maximisation Test

Ethanol : Maximisation Test, guinea pig, Result: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Ethanol : Result: Not mutagenic in Ames Test. , OECD Test Guideline 471

Genotoxicity in vivo

Ethanol : Result: not mutagenic

Mutagenicity

Propan-1-ol : Not mutagenic in Ames Test.

Ethanol : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity

Propan-1-ol : Animal testing did not show any carcinogenic effects.

Ethanol : Did not show carcinogenic effects in animal experiments.

Reproductive toxicity

Propan-1-ol : rat, Inhalation, NOAEL: 8,6 mg/l

Reproductive toxicity

Propan-1-ol : Animal testing did not show any effects on fertility.

Ethanol : In animal testing, risk of impaired fertility was shown only after administration of very high doses of this substance.

Teratogenicity

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|| Propan-1-ol : rat, Inhalation, NOAEL: 8,6 mg/l
Ethanol : rat, Oral, NOAEL: 2.000 mg/kg

Teratogenicity

Propan-1-ol : Experiments have shown reproductive toxicity effects on laboratory animals.
Ethanol : Animal experiments showed mutagenic and teratogenic effects.

Repeated dose toxicity

Ethanol : rat, Oral, NOAEL: 2.400 mg/kg

Further information

: No data is available on the product itself. The classification was made according to the calculation procedure of the Preparations Directive. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

12. Ecological information

12.1 Toxicity

Toxicity to fish

Propan-1-ol : LC50: 3.200 mg/l, 96 h, Fish
Ethanol : LC50: 8.140 mg/l, 48 h, Leuciscus idus (Golden orfe)

Toxicity to daphnia and other aquatic invertebrates

Propan-1-ol : EC50: 3.642 mg/l, 48 h, Daphnia magna (Water flea)
Ethanol : EC50: > 5.000 mg/l, 48 h, Daphnia magna (Water flea)

Toxicity to algae

Propan-1-ol : NOEC: 1.150 mg/l, 48 h, Chlorella pyrenoidosa
Ethanol : IC50: > 100 mg/l, 72 h, Scenedesmus quadricauda (Green algae)

Toxicity to bacteria : EC50: 68.750 mg/l, OECD 209

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

|| Propan-1-ol : NOEC: > 100 mg/l, 21 d, Daphnia magna (Water flea), OECD Test Guideline 211

12.2 Persistence and degradability

Biodegradability : Result: Readily biodegradable., OECD 301D / EEC 84/449 C6

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Chemical Oxygen Demand (COD) : 13.000 mg/l, Test substance: 1% solution

12.3 Bioaccumulative potential

Bioaccumulation


Propan-1-ol : Bioaccumulation is unlikely.

 Ethanol : Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : not applicable

12.4 Mobility in soil

Mobility

 Propan-1-ol : Mobile in soils

Ethanol : no data available

12.5 Results of PBT and vPvB assessment

Assessment : This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

12.6 Other adverse effects

Additional ecological information : none

13. Disposal considerations

13.1 Waste treatment methods

Product : Dispose of the product according to the defined EWC (European Waste Code) No.

Contaminated packaging : Take empty packaging to the recycling plant.

Waste key for the unused product : EWC 070604

Waste key for the unused product(Group) : Waste material of HZVA from fats, lubricants, soaps, detergents, disinfectants and personal protection products.

14. Transport information

ADR : UN number 1987



Proper shipping name

ALCOHOLS, N.O.S. (Propan-1-ol, Ethanol)

Transport hazard class 3

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IMDG : Packaging group III
Environmental hazards -
Classification Code F1
ADR/RID-Labels 3
ICAO-Labels 30
UN number 1987



Proper shipping name

ALCOHOLS, N.O.S. (Propan-1-ol, Ethanol)

IATA : Transport hazard class 3
Packaging group III
Environmental hazards -
EmS F-E, S-D
UN number 1987



Proper shipping name

ALCOHOLS, N.O.S. (Propan-1-ol, Ethanol)

Transport hazard class 3
Packaging group III
Environmental hazards -

Special precautions for user

ADR Tunnel restriction code: D/E

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

Exempt

15. Regulatory information

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

Legislation on the control of major-accident hazards involving dangerous substances : The product belongs to at least one of the categories 1 through 11 mentioned in Annex 1 of the Directive 1996/82/EC concerning the control of major accident hazards.

Volatile organic compounds (VOC) content : 60 %
Directive 1999/13/EC on the limitation of emissions of volatile organic compounds

15.2 Chemical Safety Assessment

Exempt

16. Other information

Full text of R-phrases referred to under sections 2 and 3

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R10	Flammable.
R11	Highly flammable.
R41	Risk of serious damage to eyes.
R67	Vapours may cause drowsiness and dizziness.

Full text of H-Statements referred to under sections 2 and 3.

H225	Highly flammable liquid and vapour.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Changes compared with the previous edition!!!

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.