according to Regulation (EC) No. 1907/2006



mikrozid® AF wipes No Change Service!

Version Revision Date: Date of last issue: 08.02.2017 05.05 18.04.2017 Date of first issue: 12.07.2001

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

1.1 Product identifier

Trade name : mikrozid® AF wipes

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

Manufacturer/ Supplier : Schülke & Mayr GmbH

Robert-Koch-Str. 2

22851 Norderstedt

Germany

Telephone: +49 (0)40/ 52100-0 Telefax: +49 (0)40/ 52100318

mail@schuelke.com www.schuelke.com

E-mail address of person

responsible for the SDS/Contact person

: Application Department +49 (0)40/ 521 00 8800 ADHI@schuelke.com

(Schülke & Mayr UK Ltd.: +44-1142543500)

1.4 Emergency telephone number

Emergency telephone num-

her

: UK Poisons Emergency number: 0870 600 6266

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3

Eye irritation, Category 2

Specific target organ toxicity - single ex
H226: Flammable liquid and vapour.

H319: Causes serious eye irritation.

H336: May cause drowsiness or dizziness.

posure, Category 3

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms





Signal word : Warning

Hazard statements : H226 Flammable liquid and vapour.

H319 Causes serious eye irritation.H336 May cause drowsiness or dizziness.

Precautionary statements : P102 Keep out of reach of children.

according to Regulation (EC) No. 1907/2006



mikrozid® AF wipes No Change Service!

Version Revision Date: Date of last issue: 08.02.2017 05.05 Date of first issue: 12.07.2001

P210 Keep away from heat, hot surfaces, sparks,

open flames and other ignition sources. No

smoking.

P280 Wear protective gloves (e.g. Nitrile rubber)

/eye protection.

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.

Further information : Use biocides safely. Always read the label and product infor-

mation before use.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Has a degreasing effect on the skin.

SECTION 3: Composition/information on ingredients of the active solution

3.2 Mixtures

Chemical nature : Aqueous, alcohol containing solution on non-woven

Hazardous components

Chemical name	Index-Number CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
Propan-1-ol	603-003-00-0 71-23-8 200-746-9 01-2119486761-29- XXXX	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	Flam. Liq. 2; H225 Eye Irrit. 2; H319	25

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

If inhaled : If symptoms persist, call a physician.

In case of skin contact : Wash with water and soap as a precaution. If skin irritation

persists, call a physician.

In case of eye contact : Rinse thoroughly with plenty of water, also under the eyelids.

If eye irritation persists, consult a specialist.

If swallowed : If accidentally swallowed obtain immediate medical attention.

according to Regulation (EC) No. 1907/2006



mikrozid® AF wipes No Change Service!

Version **Revision Date:** Date of last issue: 08.02.2017 05.05 18.04.2017 Date of first issue: 12.07.2001

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.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Dry powder, Alcohol-resistant foam, Carbon dioxide (CO2),

Water spray jet

Unsuitable extinguishing

media

: Foam, 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.

Specific risk from the substance or the product itself, its combustion products or

evolved gases

: No special risks known.

5.3 Advice for firefighters

for firefighters

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

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Remove all sources of ignition. Avoid contact with eyes.

6.2 Environmental precautions

Environmental precautions : No special environmental precautions required.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Use mechanical handling equipment.

6.4 Reference to other sections

see Section 8 + 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

: Wear personal protective equipment.

Advice on protection against

: Keep away from sources of ignition - No smoking.

fire and explosion

Hygiene measures : Keep away from food and drink.

according to Regulation (EC) No. 1907/2006



mikrozid® AF wipes No Change Service!

Version Revision Date: Date of last issue: 08.02.2017 05.05 18.04.2017 Date of first issue: 12.07.2001

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage

: Store at room temperature in the original container.

areas and containers
Further information on stor-

: Keep container tightly closed. Keep away from direct sunlight.

age conditions

Recommended storage temperature: 15 - 25°C

Advice on common storage

: Strong oxidizing agents

7.3 Specific end use(s)

Specific use(s) : none

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Ethanol	64-17-5	Permissible exposure limit	500 ppm 960 mg/m3	TRGS 900
		Ceiling Limit Val- ue	1.000 ppm 1.920 mg/m3	TRGS 900
		Permissible exposure limit	1.000 ppm 1.900 mg/m3	OSHA
Propan-1-ol	71-23-8	Permissible exposure limit	200 ppm 500 mg/m3	OSHA

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

	• •			
Substance name	End Use	Exposure routes	Potential health effects	Value
Propan-1-ol	Workers	Skin contact	Long-term exposure, Systemic effects	136 mg/kg
	Workers	Inhalation	Long-term exposure, Systemic effects	268 mg/m3
	Workers	Inhalation	Short-term exposure, Systemic effects	1723 mg/m3
Ethanol	Workers	Inhalation	Acute effects, Local effects	1900 mg/m3
	Workers	Skin contact	Chronic effects	343 mg/kg
	Workers	Inhalation	Chronic effects	950 mg/m3

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Propan-1-ol	Fresh water	10 mg/l
	Marine water	1 mg/l
	Fresh water sediment	22,8 mg/kg
	Marine sediment	2,28 mg/kg
	Effects on waste water treatment plants	96 mg/l

according to Regulation (EC) No. 1907/2006



mikrozid® AF wipes No Change Service!

Version Revision Date: Date of last issue: 08.02.2017 05.05 18.04.2017 Date of first issue: 12.07.2001

	Soil	2,2 mg/kg
	Intermittent use/release	10 mg/l
Ethanol	Fresh water	0,96 mg/l
	Marine water	0,79 mg/l
	Fresh water sediment	3,6 mg/kg
	Soil	0,63 mg/kg

8.2 Exposure controls

Personal protective equipment

Hand 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 protec-

tion.

Protective measures : Avoid contact with skin and eyes.

SECTION 9: Physical and chemical properties of the active solution

9.1 Information on basic physical and chemical properties

Appearance : liquid
Colour : colourless
Odour : alcohol-like
Odour Threshold : not determined
pH : Not applicable

Melting point/freezing point : < -5 °C

Decomposition temperature : No data available

Boiling point/boiling range : ca. 80 °C

Flash point : 27 °C, DIN 51755 Part 1 Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

Upper explosion limit : Propan-1-ol: 17,5 %(V)
Lower explosion limit : Propan-1-ol: 2,1 %(V)
Vapour pressure : ca. 50 hPa, 20 °C
Relative vapour density : No data available
Density : ca. 0,89 g/cm3, 20 °C

Solubility(ies)

Water solubility : in all proportions , 20 °C

Partition coefficient: n- : Not applicable

octanol/water

Auto-ignition temperature : Propan-1-ol: 412 °C

Viscosity

Viscosity, dynamic : not determined

Flow time : < 15 s at 20 °C, DIN 53211

Explosive properties : No data available Oxidizing properties : No data available

9.2 Other information

No data available

according to Regulation (EC) No. 1907/2006



mikrozid® AF wipes No Change Service!

Version Revision Date: Date of last issue: 08.02.2017 05.05 18.04.2017 Date of first issue: 12.07.2001

SECTION 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

None reasonably foreseeable.

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Strong acids and oxidizing agents,

10.6 Hazardous decomposition products

None reasonably foreseeable.

SECTION 11: Toxicological information of the active solution

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate: > 15.000 mg/kg
Acute inhalation toxicity : Acute toxicity estimate: > 50 mg/l
Acute dermal toxicity : Acute toxicity estimate: > 10.000 mg/kg

Skin corrosion/irritation

Components:

Propan-1-ol:

No skin irritation

Ethanol:

Rabbit, No skin irritation

Serious eye damage/eye irritation

Product:

Causes serious eye irritation. The toxicological data has been taken from products of similar composition., Expert judgement

Respiratory or skin sensitisation

Components:

Propan-1-ol:

Does not cause skin sensitisation. Guinea pig, OECD Test Guideline 406

Ethanol:

Did not cause sensitisation on laboratory animals. Maximisation Test, Guinea pig

Germ cell mutagenicity

Components:

Propan-1-ol:

Germ cell mutagenicity- As- : Not mutagenic in Ames Test

according to Regulation (EC) No. 1907/2006



mikrozid® AF wipes No Change Service!

Version **Revision Date:** Date of last issue: 08.02.2017 05.05 18.04.2017 Date of first issue: 12.07.2001

sessment **Ethanol:**

Genotoxicity in vitro : OECD Test Guideline 471, Not mutagenic in Ames Test

Genotoxicity in vivo : not mutagenic

: Tests on bacterial or mammalian cell cultures did not show Germ cell mutagenicity- As-

sessment mutagenic effects.

Carcinogenicity

Components: Propan-1-ol:

Carcinogenicity - Assess-

ment **Ethanol:**

Carcinogenicity - Assess-

: Did not show carcinogenic effects in animal experiments.

: Animal testing did not show any carcinogenic effects.

Reproductive toxicity

Components:

Propan-1-ol:

Effects on fertility : Rat, Inhalation, NOAEL: 8,6 mg/l Effects on foetal develop-

Reproductive toxicity - As-

sessment **Ethanol:**

: Rat, Inhalation, NOAEL: 8,6 mg/l

: Animal testing did not show any effects on fertility.

Rat, Oral, NOAEL: 2.000 mg/kg

Reproductive toxicity - As-

sessment

: In animal testing, risk of impaired fertility was shown only after

administration of very high doses of this substance.

STOT - single exposure

Product:

May cause drowsiness or dizziness.

STOT - repeated exposure

Components:

Propan-1-ol:

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Components:

Ethanol:

Rat, NOAEL: 1.730 mg/kg, LOAEL: 3.160 mg/kg, Oral90 d

Aspiration toxicity

No data available

Further information

Product:

The product has not been tested.

SECTION 12: Ecological information of the active solution

according to Regulation (EC) No. 1907/2006



mikrozid® AF wipes No Change Service!

Revision Date: Version Date of last issue: 08.02.2017 05.05 18.04.2017 Date of first issue: 12.07.2001

12.1 Toxicity

Components:

Propan-1-ol:

Toxicity to fish : LC50 (Fish): 3.200 mg/l, 96 h

Toxicity to daphnia and other

aquatic invertebrates

Toxicity to algae : NOEC (Chlorella pyrenoidosa (aglae)): 1.150 mg/l, 48 h

Test Guideline 211

Toxicity to daphnia and other aquatic invertebrates (Chron-

ic toxicity)

Ethanol:

Toxicity to fish Toxicity to daphnia and other

aquatic invertebrates

Toxicity to algae

: LC50 (Leuciscus idus (Golden orfe)): 8.140 mg/l, 48 h EC50 (Daphnia magna (Water flea)): > 5.000 mg/l, 48 h

: EC50 (Daphnia magna (Water flea)): 3.642 mg/l, 48 h

: IC50 (Scenedesmus quadricauda (Green algae)): > 100 mg/l,

NOEC: > 100 mg/l, 21 d, Daphnia magna (Water flea), OECD

72 h

12.2 Persistence and degradability

Product:

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

Chemical Oxygen Demand

(COD)

: 13.000 mg/l ,1 % solution

Components: Propan-1-ol:

Biodegradability : Readily biodegradable., Biodegradation: 75 %, Exposure

time: 20 d

Ethanol:

Biodegradability : Readily biodegradable.

12.3 Bioaccumulative potential

Components:

Propan-1-ol:

Bioaccumulation Bioconcentration factor (BCF): 0,88, Bioaccumulation is un-

likely.

Partition coefficient: n-

octanol/water

log Pow: 0,43

Ethanol:

Bioaccumulation : Bioaccumulation is unlikely. Partition coefficient: n-: log Pow: -0,14, calculated

octanol/water

12.4 Mobility in soil

Components:

Propan-1-ol:

Mobility : Mobile in soils

Ethanol:

Mobility : No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered

according to Regulation (EC) No. 1907/2006



mikrozid® AF wipes No Change Service!

Version Revision Date: Date of last issue: 08.02.2017 05.05 Date of first issue: 12.07.2001

to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Product:

Additional ecological infor-

mation

: This product has no known ecotoxicological effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Can be incinerated or landfilled together with household waste

in compliance with the regulations, and after consultation with

the waste disposal services.

Contaminated packaging : Take empty packaging to the recycling plant.

SECTION 14: Transport information

14.1 UN number

IMDG : UN 3175 IATA : UN 3175

14.2 UN proper shipping name

IMDG : SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S.

(Propan-1-ol, Ethanol)

IATA : Solids containing flammable liquid, n.o.s.

(Propan-1-ol, Ethanol)

14.3 Transport hazard class(es)

IMDG : 4.1 IATA : 4.1

14.4 Packing group

IMDG

Packing group : II
Labels : 4.1
EmS Code : F-A, S-I

IATA

Packing instruction (cargo : 448

aircraft)

Packing group : II

Labels : Flammable Solid

14.5 Environmental hazards

IMDG

Marine pollutant : no

14.6 Special precautions for user

For personal protection see section 8.

according to Regulation (EC) No. 1907/2006



mikrozid® AF wipes No Change Service!

Version Revision Date: Date of last issue: 08.02.2017 05.05 18.04.2017 Date of first issue: 12.07.2001

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

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High : Not applicable

Concern for Authorisation (Article 59).

Regulation (EC) No 850/2004 on persistent organic pol- : Not applicable

lutants

Seveso III: Directive : Quantity 1 Quantity 2

2012/18/EU of the European Parliament and of the Council on the control of majoraccident hazards involving dangerous substances.

P5c FLAMMABLE LIQUIDS 5.000 t 50.000 t

Volatile organic compounds : Volatile organic compounds (VOC) content: 60 %, of the ac-

tive solution, Directive 2010/75/EC on the limitation of emis-

sions of volatile organic compounds

Other regulations : Take note of Directive 98/24/EC on the protection of the

health and safety of workers from the risks related to chemical agents at work. Take note of Directive 2000/39/EC establishing

a first list of indicative occupational exposure limit val-

ues.Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products

15.2 Chemical safety assessment

Exempt

SECTION 16: Other information

Full text of H-Statements

H225
H318
Causes serious eye damage.
H319
Causes serious eye irritation.
H336
May cause drowsiness or dizziness.

Full text of other abbreviations

Eye Dam. : Serious eye damage

Eye Irrit. : Eye irritation Flam. Liq. : Flammable liquids

STOT SE : Specific target organ toxicity - single exposure

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN

according to Regulation (EC) No. 1907/2006



mikrozid® AF wipes No Change Service!

Version Revision Date: Date of last issue: 08.02.2017 05.05 18.04.2017 Date of first issue: 12.07.2001

- Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx -Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) No. 1272/2008

Flam. Liq. 3, H226 : On basis of test data.

Eye Irrit. 2, H319 : Bridging principle "Substantially similar mixtures".

STOT SE 3, H336 : Calculation method

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.