according to Regulation (EC) No. 1907/2006



terralin® liquid No Change Service!

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

1.1 Product identifier

Trade name : terralin® liquid

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

Use of the Sub-

: Disinfectants and general biocidal products

stance/Mixture

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

Supplier : Schülke & Mayr UK Ltd.

Cygnet House

1, Jenkin Road, Meadowhall

Sheffield S9 1AT United Kingdom

Telephone: +44 114 254 35 00 Telefax: +44 114 254 35 01 mail.uk@schulke.com

E-mail address of person responsible for the SDS/Contact person

: Application Department HI +49 (0)40/ 521 00 544 ADHI@schuelke.com

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

1.4 Emergency telephone number

Emergency telephone num- : UK Poiso

: 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

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)

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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.

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smokina.

P261 Avoid breathing vapours/ spray.

P271 Use only outdoors or in a well-ventilated

area.

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.

Special labelling of certain

mixtures

: Labelling according to Regulation (EC) No. 648/2004: (per-

fumes)

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

mation before use.

2.3 Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT). Vapours may form explosive mixtures with air.

SECTION 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	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

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Ethanol	603-002-00-5 64-17-5 200-578-6 01-2119457610-43- XXXX	Flam. Liq. 2; H225 Eye Irrit. 2; H319	25
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For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice Take off all contaminated clothing immediately.

Move to fresh air. If symptoms persist, call a physician. If inhaled

Wash off with plenty of water. If symptoms persist, call a phy-In case of skin contact

In case of eye contact : In case of eye contact, remove contact lens and rinse imme-

> diately 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.

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

: 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

: Vapours may form explosive mixtures with air.

5.3 Advice for firefighters

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

for firefighters

SECTION 6: Accidental release measures

according to Regulation (EC) No. 1907/2006



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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 material 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 Section 8 + 13

SECTION 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.

Hygiene measures : Keep away from food and drink.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage

areas and containers

Further information on stor-

age conditions

Advice on common storage

Store at room temperature in the original container. Do not

store at temperatures above 30°C.

Keep container tightly closed. Keep away from direct sunlight.

Recommended storage temperature: 15 - 25°C

: Do not store together with oxidising agents.

7.3 Specific end use(s)

Specific use(s) : The product falls under the regulation on biocide products

(EU) 528/2012. Product type: 2

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	WEL	1.000 ppm 1.920 mg/m3	HSE
Propan-1-ol	71-23-8	WEL	200 ppm 500 mg/m3	HSE
		WEL	250 ppm 625 mg/m3	HSE

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

Substance name	End Use	Exposure routes	Potential health ef-	Value
			fects	

according to Regulation (EC) No. 1907/2006



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Ethanol	Workers	Inhalation	Acute effects, Local effects	1900 mg/m3
	Workers	Skin contact	Chronic effects	343 mg/m3
	Workers	Inhalation	Chronic effects	950 mg/m3
Propan-1-ol	Workers	Skin contact	Long-term exposure, Systemic effects	136 mg/kg
	Workers	Inhalation	Long-term exposure, Systemic effects	268 mg/kg
	Workers	Inhalation	Short-term exposure, Systemic effects	1723 mg/kg

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
	Soil	2,2 mg/l
	Marine sediment	2,28 mg/kg
	Fresh water sediment	22,8 mg/kg
	Effects on waste water treatment plants	96 mg/l
	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

Eye protection : Safety glasses with side-shields conforming to EN166

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.

Respiratory protection : No personal respiratory protective equipment normally re-

quired.

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.

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Protective measures : Avoid contact with skin and eyes.

SECTION 9: Physical and chemical properties

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

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

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

No decomposition if stored and applied as directed.

according to Regulation (EC) No. 1907/2006



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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate: > 15000 mg/kg, Estimation of acute

oral toxicity, in accordance with the calculation methode presented in the GHS (Globally Harmonized System), Part 3,

Chapter 3.1)

Acute inhalation toxicity : Acute toxicity estimate: > 50 mg/l, in accordance with the cal-

culation methode presented in the GHS (Globally Harmonized

System), Part 3, Chapter 3.1)

Acute dermal toxicity : Acute toxicity estimate: > 10000 mg/kg, in accordance with

the calculation methode presented in the GHS (Globally Har-

monized System), Part 3, Chapter 3.1)

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, Maximisation Test (GPMT)

Ethanol:

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

Germ cell mutagenicity

Components:

Propan-1-ol:

Germ cell mutagenicity- As-

: Not mutagenic in Ames Test

sessment **Ethanol**:

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

Genotoxicity in vivo : not mutagenic

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

sessment mutagenic effects.

Carcinogenicity

Components:

Propan-1-ol:

according to Regulation (EC) No. 1907/2006



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Carcinogenicity - Assess-

: Animal testing did not show any carcinogenic effects.

ment **Ethanol:**

Carcinogenicity - Assess-

ment

: Did not show carcinogenic effects in animal experiments.

Reproductive toxicity

Components:

Propan-1-ol:

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

ment

Reproductive toxicity - As-

: Animal testing did not show any effects on fertility.

sessment **Ethanol:**

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:

Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

SECTION 12: Ecological information

12.1 Toxicity

Product:

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

Components:

Propan-1-ol:

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

Toxicity to daphnia and other EC50 (Daphnia magna (Water flea)): 3.642 mg/l, 48 h

according to Regulation (EC) No. 1907/2006



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aquatic invertebrates

Toxicity to algae : NOEC (Chlorella pyrenoidosa (aglae)): 1.150 mg/l, 48 h Toxicity to daphnia and other : NOEC: > 100 mg/l, 21 d, Daphnia magna (Water flea), OECD Test Guideline 211

aquatic invertebrates (Chron-

ic toxicity) Ethanol:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 8.140 mg/l, 48 h Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 5.000 mg/l, 48 h

aquatic invertebrates

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

72 h

12.2 Persistence and degradability

Product:

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

Chemical Oxygen Demand : 13.000 mg/l ,1% solution

(COD)

Components: Propan-1-ol:

Biodegradability : Readily biodegradable

Ethanol:

Biodegradability : Readily biodegradable

12.3 Bioaccumulative potential

Components:

Propan-1-ol:

Bioaccumulation : Bioaccumulation is unlikely.

: log Pow: 0,43 Partition coefficient: n-

octanol/water **Ethanol:**

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

octanol/water

12.4 Mobility in soil

Components:

Propan-1-ol:

: Mobile in soils Mobility

Ethanol:

Mobility : No data available

12.5 Results of PBT and vPvB assessment

Product:

: This mixture contains no substance considered to be persis-Assessment

tent, bioaccumulating and toxic (PBT).

12.6 Other adverse effects

Product:

Additional ecological infor-: none

mation

SECTION 13: Disposal considerations

according to Regulation (EC) No. 1907/2006



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13.1 Waste treatment methods

Product : Dispose of the product according to the defined EWC (Euro-

pean Waste Code) No.

Contaminated packaging : Take empty packaging to the recycling plant.

Waste key for the unused : EWC 070604

product

Waste key for the unused : Waste material of HZVA from fats, lubricants, soaps, deter-

product(Group) gents, disinfectants and personal protection products.

SECTION 14: Transport information

14.1 UN number

ADR : UN 1987 IMDG : UN 1987 IATA : UN 1987

14.2 UN proper shipping name

ADR : ALCOHOLS, N.O.S.

(Propan-1-ol, Ethanol)

IMDG : ALCOHOLS, N.O.S.

(Propan-1-ol, Ethanol)

IATA : Alcohols, n.o.s.

(Propan-1-ol, Ethanol)

14.3 Transport hazard class(es)

 ADR
 : 3

 IMDG
 : 3

 IATA
 : 3

14.4 Packing group

ADR

Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3
Tunnel restriction code : D/E

IMDG

Packing group : III Labels : 3

EmS Code : F-E, S-D

IATA

Packing instruction (cargo : 366

aircraft)

Packing group : III

Labels : Flammable Liquid

14.5 Environmental hazards

ADR

according to Regulation (EC) No. 1907/2006



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Environmentally hazardous : no

IMDG

Marine pollutant : no

14.6 Special precautions for user

For personal protection see section 8.

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

Legislation on the control of major-accident hazards involving dangerous substanc-

: 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

Volatile organic compounds (VOC) content: 60 %, Directive 2010/75/EC on the limitation of emissions of volatile organic compounds

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

(Q)SAR - (Quantitative) Structure Activity Relationship; 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; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; DIN - Standard of the German Institute for Standardisation; 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; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; 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; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a

according to Regulation (EC) No. 1907/2006



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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; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; 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; TRGS - Technical Rule for Hazardous Substances: UN - United Nations: vPvB - Very Persistent and Very Bioaccumulative: DSL - Domestic Substances List (Canada); KECI - Korea Existing Chemicals Inventory; TSCA -Toxic Substances Control Act (United States); AICS - Australian Inventory of Chemical Substances; IECSC - Inventory of Existing Chemical Substances in China; ENCS - Existing and New Chemical Substances (Japan); ISHL - Industrial Safety and Health Law (Japan); PICCS - Philippines Inventory of Chemicals and Chemical Substances; NZIoC - New Zealand Inventory of Chemicals; TCSI - Taiwan Chemical Substance Inventory; CMR - Carcinogen, Mutagen or Reproductive Toxicant; GLP - Good Laboratory Practice

Further information

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.