

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

**schülke** 

## **thermodent® clear**      **No Change Service!**

Version  
03.02

Revision Date:  
28.09.2017

Date of last issue: 08.09.2016  
Date of first issue: 14.01.2008

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

### **1.1 Product identifier**

Trade name : thermodent® clear

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

Use of the Sub-  
stance/Mixture : Additive

Recommended restrictions  
on use : Restricted to professional users.

### **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  
+49 (0)40/ 521 00 8800  
ADHI@schuelke.com  
(Schülke & Mayr UK Ltd.: +44-1142543500)

### **1.4 Emergency telephone number**

Emergency telephone num-  
ber : 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)**

Eye irritation, Category 2

H319: Causes serious eye irritation.

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### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms

:



Signal word

: Warning

Hazard statements

: H319 Causes serious eye irritation.

Precautionary statements

: P280 Wear eye protection/ face 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

: The product is classified in accordance with Annex I (2.6.4.5) to Regulation (EC) 1272/2008.

### 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.

No special risks known.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical nature

: Solution of the following substances with harmless additives.

#### Hazardous components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Propan-2-ol	67-63-0 200-661-7 603-117-00-0 01-2119457558-25-XXXX	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	5 - 15
Alcohol, C13-C15 branched and linear, butoxylated ethoxy-	111905-53-4 Polymer --- ---	Acute Tox. 4; H302 Eye Irrit. 2; H319 Aquatic Chronic 3; H412	5 - 15
Alcohols, C9-11-iso, C10-rich, ethoxylated	78330-20-8 Polymer ---	Acute Tox. 4; H302 Eye Dam. 1; H318	1 - 5

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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          | : | If symptoms persist, call a physician.  |
| If inhaled              | : | If breathed in, move person into fresh air.   |
| In case of skin contact | : | Wash off immediately with plenty of water.  |
| In case of eye contact  | : | In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| If swallowed            | : | 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<br>Foam<br>Water spray jet<br>Carbon dioxide (CO <sub>2</sub> ) |
| Unsuitable extinguishing media | : | Do not use a solid water stream as it may scatter and spread fire.         |

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

- |                                       |   |  |
|---------------------------------------|---|--|
| Specific hazards during fire-fighting | : | No information available.                  |
| Hazardous combustion products         | : | No hazardous combustion products are known |

### **5.3 Advice for firefighters**

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

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

Personal precautions : No special precautions required.

**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

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**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Advice on safe handling : Prepare the working solution as given on the label(s) and/or the user instructions.

Advice on protection against fire and explosion : No special protective measures against fire required.

Hygiene measures : Keep away from food and drink.

**7.2 Conditions for safe storage, including any incompatibilities**

Requirements for storage areas and containers : Store at room temperature in the original container.

Further information on storage conditions : Keep away from heat. Keep container tightly closed.

Advice on common storage : No materials to be especially mentioned.

**7.3 Specific end use(s)**

Specific use(s) : none

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**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Propan-2-ol	67-63-0	WEL	400 ppm 999 mg/m <sup>3</sup>	HSE
		WEL	500 ppm 1,250 mg/m <sup>3</sup>	HSE

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

Substance name	End Use	Exposure routes	Potential health effects	Value
Propan-2-ol	Workers	Skin contact	Long-term exposure, Systemic effects	888 mg/kg
	Workers	Inhalation	Long-term exposure, Systemic effects	500 mg/m3

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

Substance name	Environmental Compartment	Value
Propan-2-ol	Fresh water	140.9 mg/l
	Marine water	140.9 mg/l
	Fresh water sediment	552 mg/kg
	Marine sediment	552 mg/kg
	Soil	28 mg/kg
	Intermittent use/release	140.9 mg/l
	Effects on waste water treatment plants	2251 mg/l
	Oral	160 mg/kg food

## **8.2 Exposure controls**

### **Personal protective equipment**

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

Hand protection  
Directive : The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Remarks : 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 (>480 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 required.

Protective measures : Avoid contact with 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

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pH	:	ca. 7 (20 °C)
Melting point/freezing point	:	< -5 °C
Decomposition temperature		No data available
Boiling point/boiling range	:	ca. 80 °C
Flash point	:	37 °C Method: DIN 51755 Part 1 Other information: Does not sustain combustion.
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	ca. 35 hPa (20 °C)
Vapour density	:	No data available
Relative density	:	ca. 0.99 g/cm <sup>3</sup> (20 °C)
Solubility(ies)		
Water solubility	:	in all proportions (20 °C)
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	No data available
Flow time	:	< 15 s at 20 °C Method: 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**

Hazardous reactions : None reasonably foreseeable.

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**10.4 Conditions to avoid**

Conditions to avoid : Protect from frost, heat and sunlight.

**10.5 Incompatible materials**

Materials to avoid : Never mix concentrates directly.

**10.6 Hazardous decomposition products**None reasonably foreseeable.

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**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity****Product:**

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg  
Acute inhalation toxicity : Acute toxicity estimate: > 50 mg/l  
Acute dermal toxicity : Acute toxicity estimate: > 15,000 mg/kg

**Skin corrosion/irritation****Components:****Propan-2-ol:**

No skin irritation

**Alcohol, C13-C15 branched and linear, butoxylated ethoxy-:**

Rabbit, OECD Test Guideline 404, Mild skin irritation

**Alcohols, C9-11-iso, C10-rich, ethoxylated:**

Rabbit, No skin irritation

**Serious eye damage/eye irritation****Product:**

Causes serious eye irritation., Calculation method

**Respiratory or skin sensitisation****Components:****Propan-2-ol:**

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

**Alcohol, C13-C15 branched and linear, butoxylated ethoxy-:**

No data available

**Alcohols, C9-11-iso, C10-rich, ethoxylated:**

No data available

**Germ cell mutagenicity****Components:****Propan-2-ol:**

Genotoxicity in vitro : Ames test, Mutagenicity (Escherichia coli - reverse mutation assay), Non mutagenic  
Genotoxicity in vivo : Mouse, Mutagenicity (micronucleus test), Non mutagenic  
Germ cell mutagenicity- As- : Not mutagenic in Ames Test

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assessment

**Alcohol, C13-C15 branched and linear, butoxylated ethoxy-:**

Germ cell mutagenicity- Assessment : No data available

assessment

**Alcohols, C9-11-iso, C10-rich, ethoxylated:**

Germ cell mutagenicity- Assessment : No data available

assessment

**Carcinogenicity****Components:****Propan-2-ol:**

Carcinogenicity - Assessment : Based on available data, the classification criteria are not met.

**Alcohol, C13-C15 branched and linear, butoxylated ethoxy-:**

Carcinogenicity - Assessment : No data available

**Alcohols, C9-11-iso, C10-rich, ethoxylated:**

Carcinogenicity - Assessment : No data available

ment

**Reproductive toxicity****Components:****Propan-2-ol:**

Reproductive toxicity - Assessment : Based on available data, the classification criteria are not met.

**Alcohol, C13-C15 branched and linear, butoxylated ethoxy-:**

Reproductive toxicity - Assessment : No data available

**Alcohols, C9-11-iso, C10-rich, ethoxylated:**

Reproductive toxicity - Assessment : No data available

assessment

**STOT - single exposure****Components:****Propan-2-ol:**

|| May cause drowsiness or dizziness.

**Alcohol, C13-C15 branched and linear, butoxylated ethoxy-:**

|| No data available

**Alcohols, C9-11-iso, C10-rich, ethoxylated:**

|| No data available

**STOT - repeated exposure****Components:****Propan-2-ol:**

|| Based on available data, the classification criteria are not met.

**Alcohol, C13-C15 branched and linear, butoxylated ethoxy-:**

|| Not classified due to data which are conclusive although insufficient for classification.

**Alcohols, C9-11-iso, C10-rich, ethoxylated:**

|| No data available

**Aspiration toxicity**

No data available



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**Further information****Product:**

No data is available on the product itself.

**SECTION 12: Ecological information****12.1 Toxicity****Components:****Propan-2-ol:**

Toxicity to fish : LC50 (Leuciscus idus): > 100 mg/l  
Exposure time: 48 h  
Test Type: static test

Toxicity to daphnia and other : EC50 (Daphnia magna): > 100 mg/l  
aquatic invertebrates  
Exposure time: 48 h  
Test Type: static test

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l  
Exposure time: 72 h  
Test Type: static test

**Alcohol, C13-C15 branched and linear, butoxylated ethoxy-:**

Toxicity to fish : LC50 (Leuciscus idus): 1 - 10 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna): > 1 - 10 mg/l  
aquatic invertebrates  
Exposure time: 48 h  
Test Type: semi-static test

Toxicity to algae : Remarks: No data available

**Alcohols, C9-11-iso, C10-rich, ethoxylated:**

Toxicity to fish : LC50 (Leuciscus idus): > 100 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other : EC50 : > 100 mg/l  
aquatic invertebrates  
Exposure time: 48 h

Toxicity to algae : EC50 : > 100 mg/l  
Exposure time: 72 h

**12.2 Persistence and degradability****Components:****Propan-2-ol:**

Biodegradability : Result: Readily biodegradable.

**Alcohol, C13-C15 branched and linear, butoxylated ethoxy-:**

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Biodegradability : Result: Readily biodegradable.  
Method: OECD Test Guideline 301F

**Alcohols, C9-11-iso, C10-rich, ethoxylated:**

Biodegradability : Result: Readily biodegradable, according to appropriate  
OECD test.

**12.3 Bioaccumulative potential****Components:****Propan-2-ol:**

Bioaccumulation : Remarks: No bioaccumulation is to be expected (log Pow <= 4).

Partition coefficient: n- : log Pow: 0.05 (20 °C)  
octanol/water Method: OECD Test Guideline 107

**Alcohol, C13-C15 branched and linear, butoxylated ethoxy-:**

Bioaccumulation : Remarks: Accumulation in aquatic organisms is unlikely.

**Alcohols, C9-11-iso, C10-rich, ethoxylated:**

Bioaccumulation : Remarks: According to experience not expected

**12.4 Mobility in soil****Components:****Propan-2-ol:**

Mobility : Remarks: Mobile in soils

**Alcohol, C13-C15 branched and linear, butoxylated ethoxy-:**

Mobility : Remarks: Substance does not evaporate from water surface  
into the atmosphere., Adsorption to solid soil phase is possible.

**Alcohols, C9-11-iso, C10-rich, ethoxylated:**

Mobility : Remarks: Adsorbs on soil.

**12.5 Results of PBT and vPvB assessment****Product:**

Assessment : 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..

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### 12.6 Other adverse effects

#### **Product:**

Additional ecological information : No data is available on the product itself.

## SECTION 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 : European waste catalog (EWC) 070601

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

## SECTION 14: Transport information

### 14.1 UN number

Not regulated as a dangerous good

### 14.2 UN proper shipping name

Not regulated as a dangerous good

### 14.3 Transport hazard class(es)

Not regulated as a dangerous good

### 14.4 Packing group

Not regulated as a dangerous good

### 14.5 Environmental hazards

Not regulated as a dangerous good

### 14.6 Special precautions for user

Not classified as supporting combustion according to the transport regulations.  
For personal protection see section 8.

### 14.7 Transport in bulk according to Annex II of Marpol 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 Concern for Authorisation (Article 59) : Not applicable

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

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Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

Not applicable

Volatile organic compounds : Volatile organic compounds (VOC) content: 10 %  
Remarks: Directive 2010/75/EC on the limitation of emissions 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 values.

**15.2 Chemical safety assessment**

Exempt

**SECTION 16: Other information****Full text of H-Statements**

H225 : Highly flammable liquid and vapour.  
H302 : Harmful if swallowed.  
H318 : Causes serious eye damage.  
H319 : Causes serious eye irritation.  
H336 : May cause drowsiness or dizziness.  
H412 : Harmful to aquatic life with long lasting effects.

**Full text of other abbreviations**

Acute Tox. : Acute toxicity  
Aquatic Chronic : Chronic aquatic toxicity  
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 (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - 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

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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

Eye Irrit. 2, H319 : 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.

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