

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

**schülke** 

## **dentavon® liquid**    *No Change Service!*

Version  
03.00

Revision Date:  
01.08.2017

Date of last issue: 14.10.2015  
Date of first issue: 08.09.2006

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

#### **1.1 Product identifier**

Trade name : dentavon® liquid

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

Use of the Sub-  
stance/Mixture : Disinfectants

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

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  
Emergency telephone num-  
ber : +49 (0)40/ 52100-0

### **SECTION 2: Hazards identification**

#### **2.1 Classification of the substance or mixture**

##### **Classification (REGULATION (EC) No 1272/2008)**

Skin irritation, Category 2	H315: Causes skin irritation.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Specific target organ toxicity - single ex- posure, Category 3	H335: May cause respiratory irritation.

#### **2.2 Label elements**

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

Hazard pictograms :



Signal word : Warning



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**4.1 Description of first aid measures**

- General advice : Take off all contaminated clothing immediately.  
If inhaled : Move to fresh air.  
In case of skin contact : Wash off immediately with plenty of water. If symptoms persist, call a physician.  
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, Foam, Carbon dioxide (CO<sub>2</sub>), 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 : none  
Specific risk from the substance or the product itself, its combustion products or evolved gases : No special precautions required.

**5.3 Advice for firefighters**

- Special protective equipment for firefighters : 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 : Ensure adequate ventilation. Use personal protective equipment.

**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).

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### 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.  
Advice on protection against fire and explosion                      : No special protective measures against fire required. The product is not flammable.  
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 away from direct sunlight. Keep container tightly closed.  
Advice on common storage                      : Keep away from food and drink.

### 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
Glutaral	111-30-8	Short term exposure limit	0,05 ppm	ACGIH

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

Substance name	End Use	Exposure routes	Potential health effects	Value
Glutaral	Workers	Inhalation	Long-term local effects	0,0106 mg/m <sup>3</sup>

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

Substance name	Environmental Compartment	Value
Glutaral	Fresh water	0,0025 mg/l
	Marine water	0,00025 mg/l
	Fresh water sediment	0,091 mg/kg
	Marine sediment	0,009 mg/kg
	Soil	0,18 mg/kg
	Effects on waste water treatment plants	0,8 mg/l
	Intermittent use/release	0,006 mg/l

### 8.2 Exposure controls

#### Personal protective equipment

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- |                              |   |
|------------------------------|---|
| Eye protection               | : If splashes are likely to occur, wear:<br>Safety glasses with side-shields conforming to EN166  |
| Hand protection<br>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       | : Ensure adequate ventilation, especially in confined areas. In case of insufficient ventilation, wear suitable respiratory equipment.<br>Respiratory protection complying with EN 141.<br>Recommended Filter type:<br>A  |
| 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                                 | : light blue                         |
| Odour                                  | : characteristic                     |
| Odour Threshold                        | : not determined                     |
| pH                                     | : ca. 3,4, 20 °C, (undiluted)        |
| Melting point/freezing point           | : < -5 °C                            |
| Decomposition temperature              | : Not applicable                     |
| Boiling point/boiling range            | : ca. 100 °C                         |
|  | :                                    |
| Flash point                            | : Not applicable                     |
| Evaporation rate                       | : No data available                  |
| Flammability (solid, gas)              | : Not applicable                     |
| Upper explosion limit                  | : Not applicable                     |
| Lower explosion limit                  | : Not applicable                     |
| Vapour pressure                        | : No data available                  |
| Relative vapour density                | : No data available                  |
| Density                                | : ca. 1,01 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                  |
| Explosive properties                   | : No data available                  |
| Oxidizing properties                   | : No data available                  |

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### 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

None reasonably foreseeable.

### 10.4 Conditions to avoid

Protect from frost, heat and sunlight.

### 10.5 Incompatible materials

No data available,

### 10.6 Hazardous decomposition products

None reasonably foreseeable.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

##### Product:

Acute oral toxicity	: Acute toxicity estimate: > 10.000 mg/kg
Acute inhalation toxicity	: Acute toxicity estimate: ca. 38 mg/l
Acute dermal toxicity	: Acute toxicity estimate: > 2.000 mg/kg

#### Skin corrosion/irritation

##### Product:

Causes skin irritation., Calculation method

#### Serious eye damage/eye irritation

##### Product:

Causes serious eye irritation., Calculation method

#### Respiratory or skin sensitisation

##### Product:

May cause an allergic skin reaction.

#### Germ cell mutagenicity

##### Components:

##### Glutaral:

Genotoxicity in vitro : Conflicting results have been seen in different studies.  
Did not show mutagenic effects in animal experiments.

Germ cell mutagenicity- Assessment : Did not show mutagenic effects in animal experiments.

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Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

**Reproductive toxicity****Components:****Glutaral:**

Reproductive toxicity - Assessment : Animal testing did not show any effects on fertility.

**STOT - single exposure****Product:**

|| May cause respiratory irritation.

**STOT - repeated exposure****Components:****Glutaral:**

No data available

**Repeated dose toxicity****Components:****Glutaral:**

No adverse effect has been observed in chronic toxicity tests.

**Aspiration toxicity**

No data available

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

No data is available on the product itself.

**SECTION 12: Ecological information****12.1 Toxicity****Components:****Glutaral:**

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 9,4 mg/l, 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 5,75 mg/l, 48 h

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): 0,6 mg/l, 72 h, OECD Test Guideline 201  
NOEC (Desmodesmus subspicatus (green algae)): 0,025 mg/l, 72 h, OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 1

Toxicity to fish (Chronic toxicity) : NOEC: 1,6 mg/l , 97 d, Oncorhynchus mykiss (rainbow trout)

Toxicity to daphnia and other aquatic invertebrates (Chronic) : NOEC: 2,5 mg/l , 21 d, Daphnia magna (Water flea)

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ic toxicity)  
M-Factor (Chronic aquatic toxicity) : 1

### 12.2 Persistence and degradability

#### **Product:**

Biodegradability : According to OECD criteria, the product is inherently biodegradable., The statement has been derived from the properties of the individual components.

#### **Components:**

##### **Glutaral:**

Biodegradability : Readily biodegradable., Biodegradation: 90 - 100 %, Exposure time: 28 d, OECD Test Guideline 301A

### 12.3 Bioaccumulative potential

#### **Components:**

##### **Glutaral:**

Bioaccumulation : Does not bioaccumulate.  
Partition coefficient: n-octanol/water : log Pow: ca. -0,36 (23 °C), , pH: 7, Directive 92/69/EEC, A.8

### 12.4 Mobility in soil

#### **Components:**

##### **Glutaral:**

Mobility : Mobile in soils

### 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.

### 12.6 Other adverse effects

#### **Product:**

Additional ecological information : none

## 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



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### **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**

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**

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

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: 2 %, 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. 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**

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EUH071	: Corrosive to the respiratory tract.
H301	: Toxic if swallowed.
H314	: Causes severe skin burns and eye damage.
H317	: May cause an allergic skin reaction.
H330	: Fatal if inhaled.
H334	: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	: May cause respiratory irritation.
H400	: Very toxic to aquatic life.
H411	: Toxic to aquatic life with long lasting effects.

**Full text of other abbreviations**

Acute Tox.	: Acute toxicity
Aquatic Acute	: Acute aquatic toxicity
Aquatic Chronic	: Chronic aquatic toxicity
Resp. Sens.	: Respiratory sensitisation
Skin Corr.	: Skin corrosion
Skin Sens.	: Skin sensitisation
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 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

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### **Further information**

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

Skin Irrit. 2, H315	: Calculation method
Skin Sens. 1, H317	: Calculation method
Eye Irrit. 2, H319	: Calculation method
STOT SE 3, H335	: Calculation method

|| Changes compared with the previous edition!!!

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