

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

**schülke** 

## **desmanol pure**     **No Change Service!**

Version  
03.00

Revision Date:  
05.01.2016

Date of last issue: 08.09.2014  
Date of first issue: 10.07.2012

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

#### **1.1 Product identifier**

Trade name : desmanol pure

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

Use of the Sub-stance/Mixture : Private area and public health area disinfectants and other 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 HI  
+49 (0)40/ 521 00 544  
ADHI@schuelke.com  
(Schülke & Mayr UK Ltd.: +44-1142543500)

#### **1.4 Emergency telephone number**

Emergency telephone number : 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 2	H225: Highly flammable liquid and vapour.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Specific target organ toxicity - single exposure, Category 3	H336: May cause drowsiness or dizziness.
Chronic aquatic toxicity, Category 3	H412: Harmful to aquatic life with long lasting effects.

#### **2.2 Label elements**

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

Hazard pictograms :



Signal word : Danger

Hazard statements : H225 Highly flammable liquid and vapour.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.

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	H412	Harmful to aquatic life with long lasting effects.
Precautionary statements	: P101	If medical advice is needed, have product container or label at hand.
	P102	Keep out of reach of children.
	P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
	P261	Avoid breathing vapours.
	P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P403+P233	Store in a well-ventilated place. Keep container tightly closed.
	P501	Dispose of contents/ container to an approved waste disposal plant.

### 2.3 Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).  
Take precautionary measures against static discharge.  
Vapours are heavier than air and may spread along floors.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical nature : Alcoholic solution

#### Hazardous components

Chemical name	Index-Number CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
2- Propanol	603-117-00-0 67-63-0 200-661-7 01-2119457558-25-XXXX	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	75
Myristylalcohol	- - - 112-72-1 204-000-3	Eye Irrit. 2; H319 Aquatic Chronic 1; H410	< 1

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.  
If inhaled : Move to fresh air. 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 : Prevent vomiting if possible. Aspiration hazard if swallowed -

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can enter lungs and cause damage. Call a physician immediately.

**4.2 Most important symptoms and effects, both acute and delayed**

Symptoms : Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness., irritant effects, Breathing difficulties

**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 : Water spray jet, Dry powder, Alcohol-resistant foam, Carbon dioxide (CO<sub>2</sub>)  
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., Vapours are heavier than air and may spread along floors., Vapour/air-mixtures are explosive at intense warming., Pay attention to flashback.  
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 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. Remove all sources of ignition. Do not breathe vapour.

**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 chapter 13

**SECTION 7: Handling and storage**

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### 7.1 Precautions for safe handling

- Advice on safe handling : Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Keep away from children.
- Advice on protection against fire and explosion : Take measures to prevent the build up of electrostatic charge. Vapours may form explosive mixtures with air.
- Hygiene measures : Keep away from food and drink.

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

- Requirements for storage areas and containers : Store in original container. Keep containers tightly closed in a cool, well-ventilated place.
- Further information on storage conditions : Keep away from direct sunlight. Keep at temperature not exceeding 25 °C.
- Advice on common storage : Do not store together with oxidising agents. Do not store near acids.

### 7.3 Specific end use(s)

- Specific use(s) : The product falls under the regulation on biocide products (EU) 528/2012.  
Product type: 1

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
2- Propanol	67-63-0	Permissible exposure limit	200 ppm 500 mg/m <sup>3</sup>	TRGS 900
		Ceiling Limit Value	400 ppm 1.000 mg/m <sup>3</sup>	TRGS 900
		Permissible exposure limit	400 ppm 980 mg/m <sup>3</sup>	OSHA

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

Substance name	End Use	Exposure routes	Potential health effects	Value
2- Propanol	Workers	Skin contact	Chronic effects	888 mg/m <sup>3</sup>
	Workers	Inhalation	Chronic effects	500 mg/m <sup>3</sup>
Myristylalcohol	Workers	Skin contact	Short-term exposure, Systemic effects	125 mg/kg
	Workers	Inhalation	Short-term exposure, Systemic effects	220 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term exposure, Systemic effects	125 mg/kg
	Workers	Inhalation	Long-term exposure, Systemic effects	220 mg/m <sup>3</sup>

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

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Substance name	Environmental Compartment	Value
2- Propanol	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
Myristylalcohol	Fresh water	0,00032 mg/l
	Marine water	0,000032 mg/l
	Fresh water sediment	0,36 mg/kg
	Marine sediment	0,036 mg/kg
	Soil	0,28 mg/kg
	Sewage treatment plant	0,0019 mg/l

## 8.2 Exposure controls

### Personal protective equipment

- Eye protection : If splashes are likely to occur, wear:  
Safety glasses with side-shields conforming to EN166
- Hand protection : Not applicable
- 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
- pH : Not applicable
- Melting point/freezing point : < -20 °C
- Decomposition temperature : No data available
- Boiling point/boiling range : 82 - 83 °C, DIN 53171, Raw material
- Flash point : ca. 18 °C, DIN 51755 Part 1
- Evaporation rate : No data available
- Flammability (solid, gas) : Sustains combustion
- Upper explosion limit : 2- Propanol: 12 %(V)
- Lower explosion limit : 2- Propanol: 2 %(V)
- Vapour pressure : ca. 43 hPa, 20 °C, Raw material
- Relative vapour density : ca. 2,07, Raw material
- Density : ca. 0,85 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 : 2- Propanol: 425 °C
- Viscosity

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Viscosity, dynamic                   : ca. 3,6 mPa\*s, ISO 3219  
Explosive properties                : Not explosive  
Oxidizing properties                : No data available

### 9.2 Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Vapours may form explosive mixture with air.

### 10.2 Chemical stability

The product is chemically stable.

### 10.3 Possibility of hazardous reactions

Exothermic reaction with strong acids. Reaction with certain metals (e.g. iron)

### 10.4 Conditions to avoid

Heat, flames and sparks. Exposure to sunlight.

### 10.5 Incompatible materials

Strong acids and oxidizing agents, Rubber products

### 10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

##### Product:

Acute oral toxicity                   : Acute toxicity estimate: > 5000 mg/kg, Estimation of acute oral toxicity, in accordance with the calculation method presented in the GHS (Globally Harmonized System), Part 3, Chapter 3.1)

Acute inhalation toxicity           : Acute toxicity estimate: 52 mg/l, in accordance with the calculation method presented in the GHS (Globally Harmonized System), Part 3, Chapter 3.1)

Acute dermal toxicity                : Acute toxicity estimate: > 5000 mg/kg, in accordance with the calculation method presented in the GHS (Globally Harmonized System), Part 3, Chapter 3.1)

#### Skin corrosion/irritation

##### Components:

##### **2- Propanol:**

No skin irritation

##### **Myristylalcohol:**

Rabbit, OECD Test Guideline 404, No skin irritation

#### Serious eye damage/eye irritation

##### Product:

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Causes serious eye irritation., Calculation method

**Respiratory or skin sensitisation****Components:****2- Propanol:**

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

**|| Myristylalcohol:**

Did not cause sensitisation on laboratory animals. Guinea pig, OECD Test Guideline 406

**Germ cell mutagenicity****Components:****2- Propanol:**

Germ cell mutagenicity- Assessment : Animal testing did not show any mutagenic effects.

**|| Myristylalcohol:**

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

Germ cell mutagenicity- Assessment : Not mutagenic in Ames Test

**Carcinogenicity****Components:****2- Propanol:**

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

**|| Myristylalcohol:**

Carcinogenicity - Assessment : Carcinogenicity classification not possible from current data.

**Reproductive toxicity****Components:****2- Propanol:**

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

**|| Myristylalcohol:**

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

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

|| May cause drowsiness or dizziness., Calculation method

**STOT - repeated exposure****Components:****2- Propanol:**

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

**Aspiration toxicity**

No data available

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

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

**SECTION 12: Ecological information****12.1 Toxicity****Product:**

Ecotoxicology Assessment

|| Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

**Components:****2- Propanol:**

Toxicity to fish : LC50 (Leuciscus idus): > 100 mg/l, 48 h, static test, Raw material, literature value

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna): > 100 mg/l, 48 h, static test, Raw material, literature value

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l, 72 h, static test, Raw material, literature value

|| **Myristylalcohol:**

Toxicity to fish : LC50 (Brachidanio rerio): > 100 mg/l, ISO 7346/2

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna): 1 - 10 mg/l, OECD Test Guideline 202

Toxicity to algae : (Desmodesmus subspicatus (green algae)): 10 - 100 mg/l, OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: > 0,001 - 0,01 mg/l , Daphnia magna (Water flea)

M-Factor (Chronic aquatic toxicity) : 1

**12.2 Persistence and degradability****Product:**

Biodegradability : Readily biodegradable, according to appropriate OECD test., OECD Test Guideline 301D

**Components:****2- Propanol:**

Biodegradability : Readily biodegradable

|| **Myristylalcohol:**

|| Biodegradability : Readily biodegradable

**12.3 Bioaccumulative potential****Components:****2- Propanol:**

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

Partition coefficient: n-octanol/water : log Pow: 0,05 (20 °C), OECD Test Guideline 107

|| **Myristylalcohol:**

|| Bioaccumulation : Does not significantly accumulate in organisms.

**12.4 Mobility in soil****Components:**



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### **2- Propanol:**

Mobility : Mobile in soils

### **Myristylalcohol:**

Mobility : After release, adsorbs onto soil., The product evaporates slowly.

## **12.5 Results of PBT and vPvB assessment**

### **Product:**

Assessment : This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).

## **12.6 Other adverse effects**

### **Product:**

Additional ecological information : This product has no known ecotoxicological effects.

## **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 : EWC 070604  
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**

ADR : UN 1219

IMDG : UN 1219

IATA : UN 1219

### **14.2 UN proper shipping name**

ADR : ISOPROPANOL, SOLUTION

IMDG : ISOPROPANOL, SOLUTION

IATA : Isopropanol, solution

### **14.3 Transport hazard class(es)**

ADR : 3

IMDG : 3

IATA : 3

### **14.4 Packing group**

#### **ADR**

Packing group : II

Classification Code : F1

Hazard Identification Number : 33

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Labels : 3  
Tunnel restriction code : D/E

### **IMDG**

Packing group : II  
Labels : 3  
EmS Code : F-E, S-D

### **IATA**

Packing instruction (cargo aircraft) : 364  
Packing group : II  
Labels : Flammable Liquid

## **14.5 Environmental hazards**

### **ADR**

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 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 : Volatile organic compounds (VOC) content: 75 %, 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**

### **Full text of H-Statements**

H225 : Highly flammable liquid and vapour.

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H319 : Causes serious eye irritation.  
H336 : May cause drowsiness or dizziness.  
H410 : Very toxic to aquatic life with long lasting effects.

**Full text of other abbreviations**

Aquatic Chronic : Chronic aquatic toxicity  
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 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**

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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