1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier
Trade name : Desderman N

1.2 Relevant identified uses of the substance or mixture and uses advised against
Use of the Substance/Mixture : Disinfectants and general biocidal products
Recommended restrictions on use : Restricted to professional users.

1.3 Details of the supplier of the safety data sheet
Producer/Supplier : Schülke & Mayr GmbH
Robert-Koch-Str. 2
22851 Norderstedt
Germany
Telephone: +4940521000
Telefax: +494052100318
mail@schuelke.com
www.schuelke.com
Contact person : Application Department HI
+49 (0)40/ 521 00 544 (Schülke UK +44 114 254 3500)
pab@schuelke.com

1.4 Emergency telephone number
Emergency telephone number : UK Poisons Emergency number: 0870 600 6266
Emergency telephone number : +49 (0)40 / 52 100 –0

2. Hazards identification

2.1 Classification of the substance or mixture

Classification (67/548/EEC, 1999/45/EC)
Flammable
R11: Highly flammable.

2.2 Label elements

Labelling according to EC Directives (1999/45/EC)

Hazard pictograms:

R-phrase(s) : R11
S-phrase(s) : S 7/9

Keep container tightly closed and in a well-
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

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S16  ventilated place.
Keep away from sources of ignition - No smoking.

In the EU, this product falls under the Directive on biocide products 98/8/EC. The product is classified and labelled in accordance with EC directives or respective national laws.

Further information: Use biocides safely. Always read the label and product information before use.

2.3 Other hazards
Vapours are heavier than air and may spread along floors. Take precautionary measures against static discharge.

3. Composition/information on ingredients

3.2 Mixtures
Chemical nature: Solution of the following substances with harmless additives.

Hazardous components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Index-Number CAS-No. EC-No. Registration number</th>
<th>Classification (67/548/EEC)</th>
<th>Classification (REGULATION (EC) No 1272/2008)</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>603-002-00-5 64-17-5 200-578-6 01-211945761043-XXXX</td>
<td>F; R11</td>
<td>Flam. Liq. 2; H225</td>
<td>78,2 %</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>603-003-00-0 67-63-0 200-661-7 01-211945755825-XXXX</td>
<td>F; R11 Xi; R36 R67</td>
<td>Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336</td>
<td>10 %</td>
</tr>
<tr>
<td>Biphenyl-2-ol</td>
<td>604-020-00-6 90-43-7 201-993-5</td>
<td>Xi; R36/37/38 N; R50</td>
<td>Eye Irrit. 2; H319 Skin Irrit. 2; H315 STOT SE 3; H335 Aquatic Acute 1; H400</td>
<td>0,1 %</td>
</tr>
</tbody>
</table>

For the full text of the R-phrases mentioned in this Section, see Section 16.
For the full text of the H-Statements mentioned in this Section, see Section 16.

4. First aid measures

4.1 Description of first aid measures
General advice: Take off all contaminated clothing immediately.
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.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:
- Dry powder
- Alcohol-resistant foam
- Water spray jet
- Carbon dioxide (CO2)

Unsuitable extinguishing media:
- High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting:
- Vapours are heavier than air and may spread along floors.
- Cool closed containers exposed to fire with water spray.

5.3 Advice for firefighters

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

Specific risk from the substance or the product itself, its combustion products or evolved gases:
- Vapours may form explosive mixtures with air.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions:
- Ensure adequate ventilation.
- Remove all sources of ignition.

6.2 Environmental precautions
6.3 Methods and materials 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 8 + 13

7. Handling and storage

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 : The hot product gives off combustible vapours. Keep away from sources of ignition - No smoking.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store at room temperature in the original container. Do not store at temperatures above 30°C.

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

Advice on common storage : Keep away from food and drink. Do not store together with oxidising agents.

7.3 Specific end use(s)

none

8. Exposure controls/personal protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>Permissible exposure limit</td>
<td>500 ppm 960 mg/m³</td>
<td>TRGS 900</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>Ceiling Limit Value</td>
<td>1.000 ppm 1.920 mg/m³</td>
<td>TRGS 900</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>Permissible exposure limit</td>
<td>1.000 ppm 1.900 mg/m³</td>
<td>OSHA</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>67-63-0</td>
<td>Permissible exposure limit</td>
<td>200 ppm 500 mg/m³</td>
<td>TRGS 900</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>67-63-0</td>
<td>Ceiling Limit Value</td>
<td>400 ppm 1.000 mg/m³</td>
<td>TRGS 900</td>
</tr>
</tbody>
</table>
8.2 Exposure controls

**Personal protective equipment**

Eye protection : If splashes are likely to occur, wear: Safety glasses

Hygiene measures : Keep away from food and drink.

Protective measures : Avoid contact with eyes.

**Environmental exposure controls**

General advice : Avoid subsoil penetration.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : light green

Odour : alcohol-like
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.
Reaction with oxidising agents
Exothermic reaction with strong acids.

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Strong acids and oxidizing agents

10.6 Hazardous decomposition products

Decomposition products: None reasonably foreseeable.
11. Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity: The toxicity of desderman N corresponds approximately to that of ethanol (oral toxicity LD 50 of >2000mg/kg in rats). 2-biphenylol, which is present at 0.1% in desderman N, has an oral toxicity LD 50 of 2700mg/kg in rats.

Acute inhalation toxicity

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>LC50: 11200 mg/l, 1 h, mouse</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>LC50: &gt; 20 mg/l, 4 h, rat</td>
</tr>
<tr>
<td>Biphenyl-2-ol</td>
<td>LC0: &gt; 36 mg/l, rat</td>
</tr>
</tbody>
</table>

Acute dermal toxicity

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>LD50: 20000 mg/kg, rabbit</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>LD50: &gt; 2000 mg/kg, rabbit</td>
</tr>
<tr>
<td>Biphenyl-2-ol</td>
<td>LD50: &gt; 2000 mg/kg, rat</td>
</tr>
</tbody>
</table>

Skin irritation: Result: No skin irritation

Eye irritation

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>rabbit, Result: Mild eye irritation</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>Result: Irritating to eyes.</td>
</tr>
<tr>
<td>Biphenyl-2-ol</td>
<td>rabbit, Result: Eye irritation</td>
</tr>
</tbody>
</table>

Sensitisation

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>Maximisation Test, guinea pig, Result: Did not cause sensitization on laboratory animals.</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>Buehler Test, guinea pig, Result: Did not cause sensitization on laboratory animals.</td>
</tr>
<tr>
<td>Biphenyl-2-ol</td>
<td>Maximisation Test, guinea pig, Result: Did not cause sensitization on laboratory animals.</td>
</tr>
</tbody>
</table>

Germ cell mutagenicity

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>Result: Not mutagenic in Ames Test, OECD Test Guideline 471</td>
</tr>
</tbody>
</table>

Genotoxicity in vivo

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>Result: not mutagenic</td>
</tr>
</tbody>
</table>

Mutagenicity

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>Tests on bacterial or mammalian cell cultures did not show mutagenic effects.</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>Animal testing did not show any mutagenic effects.</td>
</tr>
</tbody>
</table>
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### Biphenyl-2-ol
- Not mutagenic in Ames Test.

#### Carcinogenicity
- Ethanol: Did not show carcinogenic effects in animal experiments.
- Propan-2-ol: Animal testing did not show any carcinogenic effects.
- Biphenyl-2-ol: no data available

#### Reproductive toxicity
- Ethanol: In animal testing, risk of impaired fertility was shown only after administration of very high doses of this substance.
- Propan-2-ol: Animal testing did not show any effects on fertility.
- Biphenyl-2-ol: no data available

#### Teratogenicity
- Ethanol: rat, Oral, NOAEL: 2.000 mg/kg

#### Repeated dose toxicity
- Ethanol: rat, Oral, NOAEL: 2.400 mg/kg

### 12. Ecological information

#### 12.1 Toxicity

**Toxicity to fish**
- Ethanol: LC50: 8.140 mg/l, 48 h, Leuciscus idus (Golden orfe)
- Propan-2-ol: LC50: > 100 mg/l, 48 h, Leuciscus idus, static test, Raw material
- Biphenyl-2-ol: LC50: 5.99 mg/l, 96 h, Pimephales promelas (fathead minnow)

**Toxicity to daphnia and other aquatic invertebrates**
- Ethanol: EC50: > 5.000 mg/l, 48 h, Daphnia magna (Water flea)
- Propan-2-ol: EC50: > 100 mg/l, 48 h, Daphnia magna, static test, Raw material
- Biphenyl-2-ol: EC50: 1.5 mg/l, 24 h, Daphnia magna
Toxicity to algae

- **Ethanol**: IC50: > 100 mg/l, 72 h, Scenedesmus quadricauda (Green algae)
- **Propan-2-ol**: EC50: > 100 mg/l, 72 h, Desmodesmus subspicatus (green algae), static test, Raw material
- **Biphenyl-2-ol**: EC50: 0.98 mg/l, 72 h, Desmodesmus subspicatus (green algae)

Toxicity to bacteria : EC50: 4.000 mg/l, OECD 209

12.2 Persistence and degradability

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

12.3 Bioaccumulative potential

Bioaccumulation

- **Ethanol** : Does not bioaccumulate.
- **Propan-2-ol** : No bioaccumulation is to be expected (log Pow <= 4).
- **Biphenyl-2-ol** : Bioconcentration factor (BCF): 21.07, Bioaccumulation is unlikely.

- Partition coefficient: n-octanol/water : not applicable

12.4 Mobility in soil

Mobility

- **Ethanol** : no data available
- **Propan-2-ol** : Mobile in soils
- **Biphenyl-2-ol** : no data available

12.5 Results of PBT and vPvB assessment

Assessment : This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

12.6 Other adverse effects

Additional ecological information : none

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.
14. Transport information

**ADR**
- UN number: 1987
- *Proper shipping name*
  - ALCOHOLS, N.O.S. (Ethanol, Propan-2-ol)
  - Transport hazard class: 3
  - Packaging group: II
  - Environmental hazards: -
  - Classification Code: F1
  - ADR/RID-Labels: 3
  - ICAO-Labels: 33

**IMDG**
- UN number: 1987
- *Proper shipping name*
  - ALCOHOLS, N.O.S. (Ethanol, Propan-2-ol)
  - Transport hazard class: 3
  - Packaging group: II
  - Environmental hazards: -
  - EmS: F-E, S-D

**IATA**
- UN number: 1987
- *Proper shipping name*
  - ALCOHOLS, N.O.S. (Ethanol, Propan-2-ol)
  - Transport hazard class: 3
  - Packaging group: II
  - Environmental hazards: -

**Special precautions for user**
- ADR Tunnel restriction code: D/E

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

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 in-
- The product belongs to at least one of the categories 1 through 11 mentioned in Annex 1 of the Directive 1996/82/EC
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Volatile organic compounds (VOC) content: 89 %

15.2 Chemical Safety Assessment
Exempt

16. Other information

Full text of R-phrases referred to under sections 2 and 3
R11 Highly flammable.
R36 Irritating to eyes.
R36/37/38 Irritating to eyes, respiratory system and skin.
R50 Very toxic to aquatic organisms.
R67 Vapours may cause drowsiness and dizziness.

Full text of H-Statements referred to under sections 2 and 3.
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H400 Very toxic to aquatic life.

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.