1. PRODUCT AND COMPANY IDENTIFICATION

Product name       : Sterillium med
Product code       : R11520

Manufacturer or supplier's details
Manufacturer       : BODE Chemie GmbH
                    Melanchthonstraße 27
                    22525 Hamburg (Germany)
                    Tel.: +49 (0)40 / 54 00 60

Supplier           :

Responsible Department       : Scientific Affairs
                                      kundenservice-SIDA@bode-chemie.de

Emergency telephone number  : Giftnotruf Göttingen
                                      24h-Phone +49 (0)551 / 1 92 40

Recommended use of the chemical and restrictions on use

Recommended use
In-door use
Hand Sanitizer
Human hygiene biocidal products
For further information, refer to the product technical data sheet.

Restrictions on use
Restricted to professional users.

2. HAZARDS IDENTIFICATION

GHS Classification
Flammable liquids    : Category 2
Serious eye damage/eye irritation : Category 2A

GHS label elements
Hazard pictograms

Signal word          : Danger

Hazard statements    : H225 Highly flammable liquid and vapour.
                                      H319 Causes serious eye irritation.

Precautionary statements
P102 Keep out of reach of children.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Prevention:
P233 Keep container tightly closed.

Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Sterillium med

P337 + P313 If eye irritation persists: Get medical advice/attention.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

Disposal:
P501 Dispose of contents/container to an approved waste disposal plant.

Other hazards which do not result in classification
None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

<table>
<thead>
<tr>
<th>Components</th>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>&gt;= 70 - &lt; 90</td>
<td></td>
</tr>
<tr>
<td>Propan-1-ol</td>
<td>71-23-8</td>
<td>&gt;= 1 - &lt; 3</td>
<td></td>
</tr>
<tr>
<td>tetradecanol</td>
<td>112-72-1</td>
<td>&gt;= 0,25 - &lt; 1</td>
<td></td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

General advice : If you feel unwell, seek medical advice (show the label where possible).

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.

If swallowed : Do NOT induce vomiting. Rinse mouth.

Most important symptoms and effects, both acute and delayed : Tiredness
Eye irritation
Light-headedness
giddiness

Notes to physician : For specialist advice physicians should contact the Poisons Information Service.

5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media : none

Hazardous combustion products : No hazardous combustion products are known

Specific extinguishing methods : Standard procedure for chemical fires.

Special protective equipment for firefighters : Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation.

Environmental precautions : Should not be released into the environment.
SAFETY DATA SHEET

Sterillium med

Methods and materials for containment and cleaning up: Wipe up with absorbent material (e.g. cloth, fleece).

7. HANDLING AND STORAGE

Advice on protection against fire and explosion: Keep away from sources of ignition - No smoking. Vapours may form explosive mixtures with air. Vapours are heavier than air and may spread along floors.

Advice on safe handling: Keep away from heat.

Conditions for safe storage: Store at room temperature in the original container.

Materials to avoid: Keep away from food and drink.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>STEL</td>
<td>1.000 ppm</td>
<td>ACGIH</td>
</tr>
</tbody>
</table>

Personal protective equipment

Protective measures: No special protective equipment required.

Hygiene measures: Do not get in eyes. Keep away from food and drink.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>alcohol-like</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point/range</td>
<td>not determined</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>&gt; 35 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>20 °C</td>
</tr>
<tr>
<td>Lower explosion limit / Lower flammability limit</td>
<td>62 g/m3 (20 °C) Method: DIN EN 1839</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Density</td>
<td>0.81 g/cm3 (20 °C)</td>
</tr>
<tr>
<td>Solubility(ies) Water solubility</td>
<td>completely miscible</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY
SAFETY DATA SHEET

Sterillium med

Reactivity : No decomposition if stored and applied as directed.
Chemical stability : The product is chemically stable.
Possibility of hazardous reactions : None reasonably foreseeable.
Conditions to avoid : Heat, flames and sparks. Strong sunlight for prolonged periods.
Incompatible materials : None.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:
Acute inhalation toxicity : Acute toxicity estimate: > 40 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 5.000 mg/kg
Method: Calculation method

Components:
Ethanol (CAS: 64-17-5):
Acute oral toxicity : LD50 Oral (Rat): 10.470 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 51 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403

Propan-1-ol (CAS: 71-23-8):
Acute oral toxicity : LD50 Oral (Rat): 8.000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 33,8 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 Dermal (Rabbit): 4.032 mg/kg
Method: OECD Test Guideline 402

tetradecanol (CAS: 112-72-1):
Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg

Skin corrosion/irritation

Product: Result: No skin irritation

Components:
Ethanol (CAS: 64-17-5):
Species: human skin
Result: Mild skin irritation
Remarks: Based on available data, the classification criteria are not met.

**Propan-1-ol (CAS: 71-23-8):**
Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

tetradecanol (CAS: 112-72-1):
Method: OECD Test Guideline 404
Result: No skin irritation

### Serious eye damage/eye irritation

**Product:**
Result: Irritating to eyes.

**Components:**

**Ethanol (CAS: 64-17-5):**
Species: Rabbit
Method: OECD Test Guideline 405
Result: Irritating to eyes.

**Propan-1-ol (CAS: 71-23-8):**
Species: Rabbit
Method: OECD Test Guideline 405
Result: Irreversible effects on the eye

**tetradecanol (CAS: 112-72-1):**
Species: Rabbit
Method: OECD Test Guideline 405
Result: Irritating to eyes.

### Respiratory or skin sensitisation

**Components:**

**Ethanol (CAS: 64-17-5):**
Species: Mouse
Method: OECD Test Guideline 429
Result: Does not cause skin sensitisation.

**Propan-1-ol (CAS: 71-23-8):**
Test Type: Maximisation Test
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Did not cause sensitisation on laboratory animals.

tetradecanol (CAS: 112-72-1):
Method: OECD Test Guideline 406
Result: Did not cause sensitisation on laboratory animals.

### Germ cell mutagenicity

**Components:**

**Propan-1-ol (CAS: 71-23-8):**
Genotoxicity in vitro: Test Type: in vitro assay
Result: negative
Carcinogenicity

**Product:**
Remarks: This information is not available.

Reproductive toxicity
No data available

STOT - single exposure

**Product:**
Remarks: No data available

STOT - repeated exposure

**Product:**
Remarks: No data available

Repeated dose toxicity

**Product:**
Remarks: This information is not available.

Aspiration toxicity
No data available

Experience with human exposure
No data available

Toxicology, Metabolism, Distribution
No data available

Neurological effects
No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity

**Product:**
Toxicity to fish : Remarks: No data available
Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available
Toxicity to algae : Remarks: No data available
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: No data available
Toxicity to microorganisms : Remarks: No data available

**Components:**

**Ethanol** (CAS: 64-17-5):
Toxicity to fish : LC50 (Fish): 13.000 mg/l
SAFETY DATA SHEET

Sterillium med

Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates
EC50 (Daphnia magna (Water flea)): 12.340 mg/l
Exposure time: 48 h

Toxicity to algae
EC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Propan-1-ol (CAS: 71-23-8):

Toxicity to fish
LC50 (Pimephales promelas (fathead minnow)): 4.555 mg/l
Exposure time: 96 h
Test Type: flow-through test
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates
EC50 (Daphnia magna (Water flea)): 3.644 mg/l
Exposure time: 48 h
Method: DIN 38412

Toxicity to algae
NOEC (Chlorella pyrenoidosa (algae)): 1.150 mg/l
Exposure time: 48 h
Test Type: Growth inhibition
EC50 (Pseudokirchneriella subcapitata (green algae)): 9.170 mg/l
Exposure time: 72 h
Test Type: Growth inhibition

Toxicity to microorganisms
IC50 (Bacteria): > 1.000 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209

tetradecanol (CAS: 112-72-1):

Toxicity to fish
LC50 (Oncorhynchus mykiss (rainbow trout)): > 1 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates
EC50 (Daphnia magna (Water flea)): 3.2 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae
EC50 (Desmodesmus subspicatus (green algae)): > 1 mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)
NOEC: 0.0016 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity)
1

Persistence and degradability

Product:
Biodegradability
Result: Readily biodegradable.
Remarks: The data is estimated based on the component aquatic toxicity classification.

Components:

Ethanol (CAS: 64-17-5):
Biodegradability
Remarks: Readily biodegradable, according to appropriate OECD
### Biodegradability

**tetradecanol** (CAS: 112-72-1):

- **Biodegradability**: Result: Readily biodegradable.
- **Biodegradation**: > 60 %
- **Exposure time**: 28 d
- **Method**: OECD Test Guideline 301B

### Bioaccumulative potential

**Product:**

- **Bioaccumulation**: Remarks: No data available

### Mobility in soil

**Product:**

- **Distribution among environmental compartments**: Remarks: No data available

### Other adverse effects

**Product:**

- **Adsorbed organic bound halogens (AOX)**: Remarks: No data available

## 13. DISPOSAL CONSIDERATIONS

**Disposal methods**

- **Waste from residues**: Dispose of as hazardous waste in compliance with local and national regulations. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

- **Contaminated packaging**: Empty remaining contents. Store containers and offer for recycling of material when in accordance with the local regulations.

## 14. TRANSPORT INFORMATION

**ADR**

- **UN number**: UN 1993
- **Proper shipping name**: FLAMMABLE LIQUID, N.O.S. (ethanol, propan-1-ol)
- **Class**: 3
- **Packing group**: II
- **Labels**: 3
- **Hazard Identification Number**: 33
- **Tunnel restriction code**: (D/E)

**UNRTDG**

- **UN number**: UN 1993
- **Proper shipping name**: FLAMMABLE LIQUID, N.O.S. (ethanol, propan-1-ol)
- **Class**: 3
- **Packing group**: II
- **Labels**: 3

**IATA-DGR**

- **UN/ID No.**: UN 1993
- **Proper shipping name**: Flammable liquid, n.o.s.
SAFETY DATA SHEET

Sterillium med

(ethanol, propan-1-ol)

Class: 3
Packing group: II
Labels: Class 3 - Flammable Liquid
Packing instruction (cargo aircraft): 364
Packing instruction (passenger aircraft): 353

IMDG-Code
UN number: UN 1993
Proper shipping name: FLAMMABLE LIQUID, N.O.S. (ethanol, propan-1-ol)
Class: 3
Packing group: II
Labels: 3
EmS Code: F-E, S-E
Marine pollutant: no

Transport in bulk according to IMO instruments
Not applicable for product as supplied.

Special precautions for user
The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture
International Regulations

16. OTHER INFORMATION

Safety datasheet sections which have been updated:
8. Exposure controls/personal protection

Further information

NFPA:

HMIS® IV:

Health / 1
Flammability 4
Physical Hazard 0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations
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.