

SAFETY DATA SHEET

Sterillium

Version 1.4 Revision Date: 14.02.2017 SDS Number: R11036 Date of last issue: 09.11.2016
Date of first issue: 25.03.2014

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Sterillium

Manufacturer or supplier's details

Manufacturer : BODE Chemie GmbH
Melanchthonstraße 27
22525 Hamburg
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.

2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids : Category 3
Serious eye damage/eye irritation : Category 2A
Specific target organ toxicity - single exposure : Category 3

GHS label elements

Hazard pictograms : 

Signal word : Warning

Hazard statements : H226 Flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precautionary statements : P102 Keep out of reach of children.

Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

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.
P337 + P313 If eye irritation persists: Get medical advice/ attention.

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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

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Propan-2-ol	67-63-0	>= 30 - < 50
Propan-1-ol	71-23-8	>= 30 - < 50
1-Tetradecanol	112-72-1	>= 0,1 - < 1
Mecetronium etilsulfate	3006-10-8	>= 0,1 - < 1

4. FIRST AID MEASURES

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

If inhaled : If breathed in, move person into fresh air.

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

If swallowed : Rinse mouth.
Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed : No information available.

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

Specific hazards during fire-fighting : Cool closed containers exposed to fire with water spray.

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 pro- : Ensure adequate ventilation.
Remove all sources of ignition.

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cedures

Environmental precautions : Should not be released into the environment.

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.

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

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Propan-2-ol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
Propan-1-ol	71-23-8	TWA	100 ppm	ACGIH

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Propan-2-ol	67-63-0	Acetone	Urine	End of shift at end of workweek	40 mg/l	ACGIH BEI

Personal protective equipment

Protective measures : No special protective equipment required.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : light blue

Odour : pleasant

pH : No data available

Melting point/range : not determined

Boiling point/boiling range : 83 °C

Flash point : 23 °C
Method: DIN 51755 Part 1

Lower explosion limit : lower flammability limit
70 g/m³

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	(20 °C)Method: DIN 51649
Vapour pressure	: 6 kPa (50 °C)
Density	: 0,85 g/cm ³ (20 °C)
Solubility(ies)	
Water solubility	: completely miscible
Auto-ignition temperature	: 430 °C

10. STABILITY AND REACTIVITY

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 Strong sunlight for prolonged periods.
Incompatible materials	: None.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	: LD50 Oral(Rat): 13.300 mg/kg
Acute inhalation toxicity	: Acute toxicity estimate: > 40 mg/l Exposure time: 4 h Test atmosphere: vapour Method: Calculation method
Acute dermal toxicity	: LD50 Dermal(Rabbit): > 8.500 mg/kg

Components:

Propan-2-ol (CAS: 67-63-0):

Acute oral toxicity	: LD50 Oral (Rat): > 2.000 mg/kg
Acute inhalation toxicity	: LC50 (Rat): > 20 mg/l Exposure time: 8 h Test atmosphere: vapour
Acute dermal toxicity	: LD50 Dermal (Rabbit): > 2.000 mg/kg

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

1-Tetradecanol (CAS: 112-72-1):

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Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 401

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

Mecetronium etilsulfate (CAS: 3006-10-8):

Acute oral toxicity : LD50 Oral (Rat): > 600 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 Dermal (Rabbit): > 2.000 mg/kg
Method: OECD Test Guideline 402

Skin corrosion/irritation

Product:

Result: No skin irritation

Components:

Propan-2-ol (CAS: 67-63-0):

Species: Rabbit

Result: No skin irritation

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

Species: Rabbit

Method: OECD Test Guideline 404

Result: No skin irritation

1-Tetradecanol (CAS: 112-72-1):

Method: OECD Test Guideline 404

Result: No skin irritation

Mecetronium etilsulfate (CAS: 3006-10-8):

Species: Rabbit

Method: OECD Test Guideline 404

Result: Causes burns.

Serious eye damage/eye irritation

Product:

Species: Rabbit

Method: OECD Test Guideline 405

Result: Eye irritation

GLP: yes

Components:

Propan-2-ol (CAS: 67-63-0):

Species: Rabbit

Result: Eye irritation

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

Species: Rabbit

Method: OECD Test Guideline 405

Result: Irreversible effects on the eye

1-Tetradecanol (CAS: 112-72-1):

Species: Rabbit

Method: OECD Test Guideline 405

Result: Irritating to eyes.

Mecetronium etilsulfate (CAS: 3006-10-8):

Species: Rabbit

Method: OECD Test Guideline 405

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Result: Risk of serious damage to eyes.

Respiratory or skin sensitisation

Product:

Result: Does not cause skin sensitisation.

Components:

Propan-2-ol (CAS: 67-63-0):

Test Type: Buehler Test

Species: Guinea pig

Result: Did not cause sensitisation on laboratory animals.

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.

1-Tetradecanol (CAS: 112-72-1):

Method: OECD Test Guideline 406

Result: Did not cause sensitisation on laboratory animals.

Mecetronium etilsulfate (CAS: 3006-10-8):

Method: OECD Test Guideline 406

Result: Does not cause skin sensitisation.

Germ cell mutagenicity

Components:

Propan-2-ol (CAS: 67-63-0):

Genotoxicity in vitro

: Test Type: Ames test

Metabolic activation: with and without metabolic activation

Result: negative

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

Genotoxicity in vitro

: Test Type: in vitro assay

Result: negative

Mecetronium etilsulfate (CAS: 3006-10-8):

Germ cell mutagenicity - As-

: Not mutagenic in Ames Test

essment

Carcinogenicity

No data available

Reproductive toxicity

No data available

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Repeated dose toxicity

No data available

Aspiration toxicity

No data available

Sterillium**Experience with human exposure****Components:****Mecetronium etilsulfate (CAS: 3006-10-8):**

Ingestion : Symptoms: Gastrointestinal discomfort, Vomiting

Toxicology, Metabolism, Distribution

No data available

Neurological effects

No data available

12. ECOLOGICAL INFORMATION**Ecotoxicity****Product:**

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 2.300 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): 22 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

NOEC (Desmodesmus subspicatus (green algae)): 7,8 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to microorganisms : IC50 (Bacteria): > 10.000 mg/l
Method: DIN 38 412 Part 8

Components:**Propan-2-ol (CAS: 67-63-0):**

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

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h

Toxicity to algae : EC50 (Scenedesmus capricornutum (fresh water algae)): > 100 mg/l
Exposure time: 72 h

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 (aglae)): 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

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

1-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

Mecetronium etilsulfate (CAS: 3006-10-8):

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 0,2 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 0,019 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

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

NOEC (Desmodesmus subspicatus (green algae)): 0,00014 mg/l
Exposure time: 21 d

M-Factor (Acute aquatic toxicity) : 10

Toxicity to microorganisms : IC50 (Bacteria): 22 mg/l
Method: OECD Test Guideline 209

M-Factor (Chronic aquatic toxicity) : 10

Persistence and degradability

Product:

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

Components:

1-Tetradecanol (CAS: 112-72-1):

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

Mecetronium etilsulfate (CAS: 3006-10-8):

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

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

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

14.1 UN number

ADR : UN 1987

IMDG : UN 1987

IATA : UN 1987

14.2 UN proper shipping name

ADR : ALCOHOLS, N.O.S.
(ISOPROPANOL, N-PROPANOL)

IMDG : ALCOHOLS, N.O.S.
(isopropanol, n-propanol)

IATA : ALCOHOLS, N.O.S.
(isopropanol, n-propanol)

14.3 Transport hazard class(es)

ADR : 3

IMDG : 3

IATA : 3

14.4 Packing group

ADR
Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3
Tunnel restriction code : D/E

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

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IATA (Cargo)

Packing instruction (cargo aircraft) : 366
Packing group : III
Labels : Class 3 - Flammable Liquid

IATA (Passenger)

Packing instruction (passenger aircraft) : 355
Packing group : III
Labels : Class 3 - Flammable Liquid

14.5 Environmental hazards

ADR

Environmentally hazardous : no

IMDG

Marine pollutant : no

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

15. REGULATORY INFORMATION

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

International Regulations

16. OTHER INFORMATION

Full text of other abbreviations

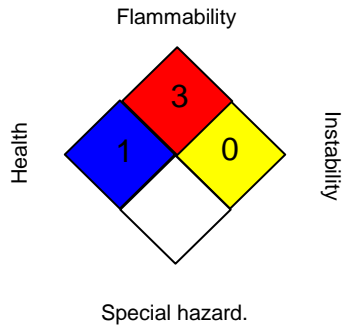
AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); 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; ERG - Emergency Response Guide; 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; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; 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; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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Further information

NFPA:



HMIS® IV:

HEALTH	1
FLAMMABILITY	3
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.

Safety datasheet sections which have been updated:

- 2. Hazards identification
- 12. Ecological information

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.

TC / EN