

SAFETY DATA SHEET

Sterillium

Version 1.10 Revision Date: 15.08.2022 SDS Number: R11036 Date of last issue: 09.09.2021
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 (Germany)
Tel.: +49 (0)40 / 54 00 60

Supplier :

Responsible Department : Scientific Affairs
sds@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.

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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

Components

Chemical name	CAS-No.	Concentration (% w/w)
Propan-2-ol	67-63-0	$\geq 30 - < 50$
Propan-1-ol	71-23-8	$\geq 30 - < 50$
tetradecanol	112-72-1	$\geq 0,1 - < 1$
mecetronium etilsulfate	3006-10-8	$\geq 0,1 - < 1$

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 skin contact : No skin irritation

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 : Eye irritation

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.

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6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation.
Remove all sources of ignition.
- 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.
Vapours are heavier than air and may spread along floors.
Vapours may form explosive mixtures with air.
- 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 : Keep away from food and drink.
Do not get in eyes.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Colour : light blue
- Odour : pleasant
- pH : No data available

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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	:	Lower flammability limit 70 g/m ³ (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): > 5.000 mg/kg
Acute dermal toxicity	:	LD50 Dermal (Rabbit): > 5.000 mg/kg

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

Acute oral toxicity	:	LD50 Oral (Rat): 8.000 mg/kg
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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): > 5.000 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg

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

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

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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.

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

Species : Rabbit
Method : OECD Test Guideline 405
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.

tetradecanol (CAS: 112-72-1):

Species : Guinea pig
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

Carcinogenicity

No data available

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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

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 : LC50 (Leuciscus idus (Golden orfe)): 2.300 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
- Toxicity to algae/aquatic plants : 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 (Pimephales promelas (fathead minnow)): 8.692 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 2.285 mg/l
Exposure time: 48 h
- NOEC (Daphnia magna (Water flea)): 141 mg/l
Exposure time: 16 d
- Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 10.500 mg/l
Exposure time: 72 h

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

- Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 4.554 mg/l
Exposure time: 96 h

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	Test Type: flow-through test Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 2.300 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	: 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 (Brachydanio rerio (zebrafish)): > 100 mg/l Exposure time: 96 h Method: ISO 7346/2
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/aquatic plants	: EC50 (Scenedesmus capricornutum (fresh water algae)): > 10 mg/l Exposure time: 72 h 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)): 0,016 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	: EC50 (Desmodesmus subspicatus (green algae)): 0,0039 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 NOEC (Desmodesmus subspicatus (green algae)): 0,00014 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
M-Factor (Acute aquatic toxicity)	: 100
Toxicity to microorganisms	: IC50 (Bacteria): 22 mg/l

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	Method: OECD Test Guideline 209
Toxicity to fish (Chronic toxicity)	: NOEC: 0,00056 mg/l Exposure time: 35 d Species: Danio rerio (zebra fish) Method: OECD Test Guideline 210
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: EC10: 0,00006 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211
M-Factor (Chronic aquatic toxicity)	: 1.000

Persistence and degradability

Product:

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

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

Biodegradability	: Result: rapidly biodegradable
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Propan-1-ol (CAS: 71-23-8):

Biodegradability	: Result: Readily biodegradable.
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tetradecanol (CAS: 112-72-1):

Biodegradability	: Result: Readily biodegradable. Biodegradation: > 60 % Exposure time: 28 d Method: OECD Test Guideline 301B
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mecetronium etilsulfate (CAS: 3006-10-8):

Biodegradability	: Result: Not readily biodegradable. Method: OECD Test Guideline 301
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Bioaccumulative potential

Components:

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

Partition coefficient: n-octanol/water	: log Pow: 0,05
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Propan-1-ol (CAS: 71-23-8):

Partition coefficient: n-octanol/water	: log Pow: 0,25
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tetradecanol (CAS: 112-72-1):

Partition coefficient: n-octanol/water	: log Pow: 5,5
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mecetronium etilsulfate (CAS: 3006-10-8):

Partition coefficient: n-	: log Pow: 2,8
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octanol/water

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

ADR

UN number : UN 1987
Proper shipping name : ALCOHOLS, N.O.S.
(propan-2-ol, propan-1-ol)
Class : 3
Packing group : III
Labels : 3
Hazard Identification Number : 30
Tunnel restriction code : (D/E)
Limited quantity (LQ) : 5,00 L

UNRTDG

UN number : UN 1987
Proper shipping name : ALCOHOLS, N.O.S.
(propan-2-ol, propan-1-ol)
Class : 3
Packing group : III
Labels : 3

IATA-DGR

UN/ID No. : UN 1987
Proper shipping name : Alcohols, n.o.s.
(propan-2-ol, propan-1-ol)
Class : 3
Packing group : III
Labels : Flammable Liquids
Packing instruction (cargo aircraft) : 366
Packing instruction (passenger aircraft) : 355

IMDG-Code

UN number : UN 1987
Proper shipping name : ALCOHOLS, N.O.S.
(propan-2-ol, propan-1-ol)
Class : 3
Packing group : III
Labels : 3
EmS Code : F-E, S-D

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Limited quantity (LQ) : 5,00 L
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

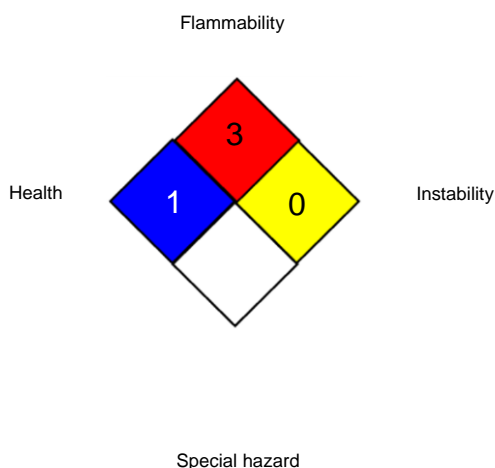
16. OTHER INFORMATION

Safety datasheet sections which have been updated:

8. Exposure controls/personal protection

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. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI : ACGIH - Biological Exposure Indices (BEI)
ACGIH / TWA : 8-hour, time-weighted average
ACGIH / STEL : Short-term exposure limit

AIIC - Australian Inventory of Industrial Chemicals; 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; 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 -

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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; TECl - Thailand Existing Chemicals Inventory; 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

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