

SAFETY DATA SHEET

Bacillol AF

Version 1.4 Revision Date: 14.02.2017 SDS Number: R11072 Date of last issue: 09.11.2016
Date of first issue: 06.06.2014

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Bacillol AF

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
Disinfectants and algacides not intended for direct application to humans or animals
Food and feed area
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 1
Specific target organ toxicity - single exposure : Category 3 (Central nervous system)

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.
H318 Causes serious eye damage.
H336 May cause drowsiness or dizziness.

Precautionary statements : P102 Keep out of reach of children.

Prevention:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing vapours.
P280 Wear protective gloves/ eye protection/ face protection.

Response:

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water

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for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. 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-1-ol	71-23-8	>= 30 - < 50
Propan-2-ol	67-63-0	>= 20 - < 30
Ethanol	64-17-5	>= 1 - < 10

4. FIRST AID MEASURES

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

If inhaled : Move to fresh air.

In case of skin contact : Wash off with plenty of water.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

If swallowed : Rinse mouth with water.
Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed : None known.

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

Special protective equipment for firefighters : Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation.
Remove all sources of ignition.

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- Environmental precautions : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.
- 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 : Take measures to prevent the build up of electrostatic charge. Keep away from open flames, hot surfaces and sources of ignition. Vapours may form explosive mixtures with air. Vapours are heavier than air and may spread along floors. Provide sufficient air exchange and/or exhaust in work rooms.
- Advice on safe handling : For personal protection see section 8.
- Conditions for safe storage : Store at room temperature in the original container.
Keep tightly closed.
- 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-1-ol	71-23-8	TWA	100 ppm	ACGIH
Propan-2-ol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
Ethanol	64-17-5	STEL	1.000 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

- Eye protection : Tightly fitting safety goggles
- Hygiene measures : Ensure adequate ventilation, especially in confined areas.
Handle in accordance with good industrial hygiene and safety practice.
Wash hands before breaks and at the end of workday.
Do not get in eyes.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Colour : colourless
- Odour : alcohol-like
- pH : 6 (20 °C)
- Boiling point/boiling range : No data available

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Flash point	:	25 °C Method: DIN 51755 Part 1
Flammability (solid, gas)	:	No data available
Lower explosion limit	:	lower flammability limit 2 %(V)
Vapour pressure	:	40 hPa (20 °C)
Density	:	0,86 g/cm ³ (20 °C)
Solubility(ies) Water solubility	:	soluble

10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	The product is chemically stable.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use.
Conditions to avoid	:	Heat Strong sunlight for prolonged periods.
Incompatible materials	:	None.
Hazardous decomposition products	:	No decomposition if stored and applied as directed.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate: > 5.000 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate: > 40 mg/l Exposure time: 4 h Test atmosphere: vapour Method: Calculation method

Components:

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

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

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Exposure time: 8 h
Test atmosphere: vapour

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

Ethanol (CAS: 64-17-5):

Acute oral toxicity : LD50 Oral (Rat): 10.470 mg/kg

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

Acute dermal toxicity : LD50 Dermal (Rabbit): > 15.800 mg/kg

Skin corrosion/irritation

Product:

Result: No skin irritation

Components:

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

Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

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

Species: Rabbit
Result: No skin irritation

Ethanol (CAS: 64-17-5):

Species: human skin
Result: Mild skin irritation
Remarks: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Product:

Result: Risk of serious damage to eyes.

Components:

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

Species: Rabbit
Method: OECD Test Guideline 405
Result: Irreversible effects on the eye

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

Species: Rabbit
Result: Eye irritation

Respiratory or skin sensitisation

Product:

Result: Does not cause skin sensitisation.

Components:

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.

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

Test Type: Buehler Test

Species: Guinea pig

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

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

Genotoxicity in vitro : Test Type: Ames test
Metabolic activation: with and without metabolic activation
Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

STOT - single exposure

Product:

Assessment: May cause drowsiness or dizziness.

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

Components:

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

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- 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
- Toxicity to microorganisms : IC50 (Bacteria): > 1.000 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209
- 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
- Ethanol (CAS: 64-17-5):**
Toxicity to fish : LC50 (Fish): 11.200 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 5.012 mg/l
Exposure time: 48 h
- Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 275 mg/l
Exposure time: 96 h

Persistence and degradability

Product:

- Biodegradability : Remarks: According to the results of tests of biodegradability this product is considered as being readily biodegradable.

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.

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

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

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.

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15. REGULATORY INFORMATION

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

International Regulations

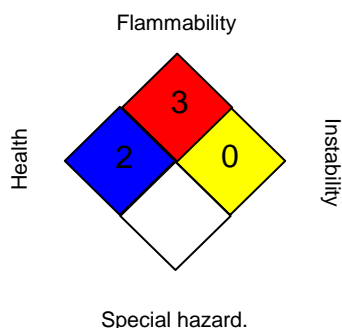
16. OTHER INFORMATION

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

Further information

NFPA:



HMIS® IV:

HEALTH	1	2
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:

15. Regulatory information

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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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