SAFETY DATA SHEET
according to the Globally Harmonized System

Bacillol AF

Version	Revision Date:	SDS Number:	Date of last issue: 20.07.2023
1.21	12.03.2024	R11072	Date of first issue: 06.06.2014

1. PRODUCT AND COMPANY IDENTIFICATION

Manufacturer or supplier's details

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

Supplier : Paul Hartmann AG
Paul-Hartmann-Str. 12
89522 Heidenheim
Deutschland
Tel.: +49 (0)7321 / 36 - 0

Responsible Department : Scientific Affairs
sds@bode-chemie.de

Emergency telephone number : Poison Center 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 algaecides not intended for direct application to humans or animals
Food and feed area disinfectants
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 : **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 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

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 : Take off all contaminated clothing immediately.
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 : Causes serious eye damage.
May cause drowsiness or dizziness.

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.

Specific hazards during firefighting : 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.
In the event of fire, wear self-contained breathing apparatus.

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	:	Clean-up methods - small spillage Wipe up with absorbent material (e.g. cloth, fleece). Clean-up methods - large spillage Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

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. Avoid contact with eyes.
Conditions for safe storage	:	Store in original container. Keep tightly closed.

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	:	Safety glasses with side-shields conforming to EN166
Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice. Keep away from food and drink.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	colourless
Odour	:	alcohol-like
pH	:	6 (20 °C)
Boiling point/boiling range	:	> 80 °C
Flash point	:	26,5 °C Method: ISO 2719
Self-ignition	:	430 °C
Lower explosion limit / Lower flammability limit	:	Lower flammability limit 2 %(V)
Vapour pressure	:	40 hPa (20 °C)
Density	:	0,855 g/cm3 (20 °C)
Solubility(ies) Water solubility	: :	 soluble
Surface tension	:	23,6 mN/m, Regulation (EC) No. 440/2008, Annex, A.5

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

Not classified based on available information.

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): > 5.000 mg/kg

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

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

Skin corrosion/irritation

Not classified based on available information.

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

Serious eye damage/eye irritation

Causes serious eye damage.

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

Ethanol (CAS: 64-17-5):

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	Irritating to eyes.

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

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.

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

Test Type	:	Buehler Test
Species	:	Guinea pig
Result	:	Did not cause sensitisation on laboratory animals.

Ethanol (CAS: 64-17-5):

Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	Does not cause skin sensitisation.

Germ cell mutagenicity

Not classified based on available information.

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

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

May cause drowsiness or dizziness.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity

Product:

Remarks : No data available

Aspiration toxicity

Not classified based on available information.

Experience with human exposure

No data available

Experience with human exposure

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)): 4.554 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)): 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

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

Ethanol (CAS: 64-17-5):

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 11.200 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 9.268 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	EC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 NOEC (Chlorella vulgaris (Fresh water algae)): 9,6 mg/l Exposure time: 72 h Method: OECD Test Guideline 201

Persistence and degradability

Product:

Biodegradability	:	Result: Readily biodegradable.

Components:

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

Biodegradability	:	Result: Readily biodegradable.

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

Biodegradability	:	Result: rapidly biodegradable

Ethanol (CAS: 64-17-5):

Biodegradability	:	Result: Readily biodegradable.

Bioaccumulative potential

Components:

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

Partition coefficient: n-octanol/water	:	log Pow: 0,25

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

Partition coefficient: n-octanol/water	:	log Pow: 0,05

Ethanol (CAS: 64-17-5):

Partition coefficient: n-octanol/water	:	log Pow: -0,35

Mobility in soil

Components:

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

Distribution among environmental compartments	:	Remarks: Mobile in soils

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-1-ol, propan-2-ol)
Class	:	3
Packing group	:	III
Labels	:	3
Hazard Identification Number	:	30
Tunnel restriction code	:	(D/E)
Limited quantity (LQ)	:	5,00 L
Environmentally hazardous	:	no

UNRTDG

UN number	:	UN 1987
Proper shipping name	:	ALCOHOLS, N.O.S. (propan-1-ol, propan-2-ol)
Class	:	3
Packing group	:	III
Labels	:	3
Environmentally hazardous	:	no

IATA-DGR

UN/ID No.	:	UN 1987
Proper shipping name	:	Alcohols, n.o.s. (propan-1-ol, propan-2-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-1-ol, propan-2-ol)
Class	:	3
Packing group	:	III
Labels	:	3
EmS Code	:	F-E, S-D
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

Other international regulations

The components of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

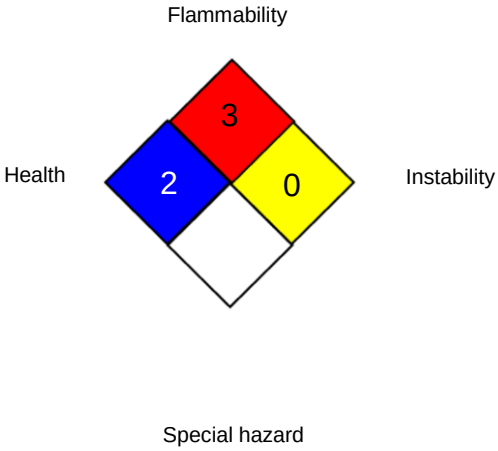
16. OTHER INFORMATION

Revision Date : 12.03.2024

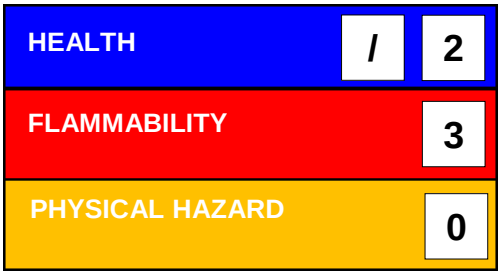
Date format : yyyy/mm/dd

Further information

NFPA:



HMIS® IV:



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 - 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; TECI - 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

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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.

TC / EN