

SAFETY DATA SHEET

according to the Globally Harmonized System

Mikrobac Virucidal Tissues

Version 1.12	Revision Date: 26.02.2024	SDS Number: R11860	Date of last issue: 05.04.2023 Date of first issue: 21.02.2018
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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 B.V.
Kerkenbos 11-03d
NL-6500 AA Nijmegen
Netherlands
Tel.: +31 (0)24 711 2000

Responsible Department : algemeen@hartmann.info

Emergency telephone number : Nationaal Vergiftigingen Informatie Centrum (NVIC)
Rijksinstituut voor Volksgezondheid en Milieu
Postbus 1, NL-3720 BA Bilthoven
Netherlands
24h-Phone +31 (0)88 755 8000

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
For further information, refer to the product technical data sheet.

Restrictions on use : Restricted to professional users.

2. HAZARDS IDENTIFICATION

GHS Classification

Long-term (chronic) aquatic hazard : Category 3

GHS label elements

Hazard pictograms : None

Signal word : None

Hazard statements : H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
P273 Avoid release to the environment.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

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Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture
Chemical nature : Aqueous solution

Components

Chemical name	CAS-No.	Concentration (% w/w)
Didecyldimethylammonium chloride	7173-51-5	$\geq 0,1 - < 0,25$
Alkyl (C12-18) dimethylbenzyl ammonium chloride (ADBAC (C12-18))	68391-01-5	$\geq 0,1 - < 0,25$

4. FIRST AID MEASURES

General advice : If you feel unwell, seek medical advice (show the label where possible).
In case of skin contact : Wash off with soap and water.
In case of eye contact : Immediately flush eye(s) with plenty of water.
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.
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.
In the event of fire, wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation.
Environmental precautions : Should not be released into the environment.
Methods and materials for containment and cleaning up : Use mechanical handling equipment.

7. HANDLING AND STORAGE

Advice on safe handling : Avoid contact with eyes.
Conditions for safe storage : Store in original container.

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Keep tightly closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

Hand protection

Nitrile rubber Material : Protective gloves complying with EN 374.

Break through time : 8 min

Glove thickness : 0,1 mm

Protective index : Class 6

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 absorbed by inert carrier material

Colour : colourless

Odour : slight

pH : $\geq 11,7$ (20 °C)

Boiling point/boiling range : 100 °C

Flash point : does not flash

Density : 1 g/cm³ (20 °C)

Solubility(ies)

Water solubility : completely miscible

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.

Hazardous decomposition products : No hazardous decomposition products are known.

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11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified based on available information.

Product:

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

Components:

Didecyldimethylammonium chloride (CAS: 7173-51-5):

Acute oral toxicity : LD50 Oral (Rat): 238 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 3.342 mg/kg

Alkyl (C12-18) dimethylbenzyl ammonium chloride (ADBAC (C12-18)) (CAS: 68391-01-5):

Acute oral toxicity : LD50 (Rat): 344 mg/kg

Acute dermal toxicity : LD50 (Rabbit): 3.412 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Product:

Result : No skin irritation

Components:

Didecyldimethylammonium chloride (CAS: 7173-51-5):

Species : Rabbit
Exposure time : 3 min
Method : OECD Test Guideline 404
Result : Corrosive after 3 minutes or less of exposure

Alkyl (C12-18) dimethylbenzyl ammonium chloride (ADBAC (C12-18)) (CAS: 68391-01-5):

Species : Rabbit
Result : Corrosive after 1 to 4 hours of exposure

Serious eye damage/eye irritation

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Species : Chicken eye
Method : OECD Test Guideline 438
Result : No eye irritation
GLP : yes

Components:

Alkyl (C12-18) dimethylbenzyl ammonium chloride (ADBAC (C12-18)) (CAS: 68391-01-5):

Species : Rabbit
Result : Corrosive

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Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

Alkyl (C12-18) dimethylbenzyl ammonium chloride (ADBAC (C12-18)) (CAS: 68391-01-5):

Test Type	:	Maximisation Test
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity

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:

Didecyldimethylammonium chloride (CAS: 7173-51-5):

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 0,19 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0,062 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 0,026 mg/l Exposure time: 72 h

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Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 10

Toxicity to fish (Chronic toxicity) : NOEC: 0,032 mg/l
Exposure time: 34 d
Species: Danio rerio (zebra fish)
Method: OECD Test Guideline 210

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,014 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211

Alkyl (C12-18) dimethylbenzyl ammonium chloride (ADBAC (C12-18)) (CAS: 68391-01-5):

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 0,515 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,016 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (microalgae)): 0,049 mg/l
Exposure time: 72 h
Test Type: Cell multiplication inhibition test
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 10

Toxicity to fish (Chronic toxicity) : NOEC: 0,032 mg/l
Exposure time: 34 d
Species: Leuciscus idus (Golden orfe)
Method: OECD Test Guideline 210

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,0042 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

Components:

Didecyldimethylammonium chloride (CAS: 7173-51-5):

Biodegradability : Method: OECD Test Guideline 301B
Remarks: Readily biodegradable, according to appropriate OECD test.

Alkyl (C12-18) dimethylbenzyl ammonium chloride (ADBAC (C12-18)) (CAS: 68391-01-5):

Biodegradability : Method: OECD Test Guideline 301B
Remarks: According to the results of tests of biodegradability this product is considered as being readily biodegradable.

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Bioaccumulative potential

Components:

Didecyldimethylammonium chloride (CAS: 7173-51-5):

Partition coefficient: n- : log Pow: 2,8 (20 °C)
octanol/water

Mobility in soil

No data available

Other adverse effects

Product:

Adsorbed organic bound halo- : Remarks: Product does not contain any organic halogens.
gens (AOX)

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : In accordance with local and national regulations.
Waste codes should be assigned by the user, preferably in discus-
sion with the waste disposal authorities.

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

14. TRANSPORT INFORMATION

ADR

Not regulated as a dangerous good

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to IMO instruments

Not applicable for product as supplied.

Special precautions for user

Not applicable

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

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16. OTHER INFORMATION

Revision Date : 26.02.2024

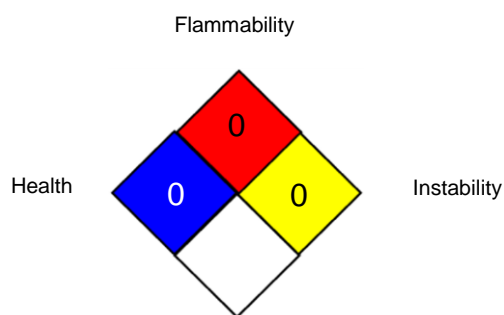
Date format : yyyy/mm/dd

Safety datasheet sections which have been updated:

9. Physical and chemical properties

Further information

NFPA:



HMIS® IV:

HEALTH	/	0
FLAMMABILITY		0
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

AIC - 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-

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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

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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