SAFETY DATA SHEET
according to the Globally Harmonized System

Bomix plus

Version	Revision Date:	SDS Number:	Date of last issue: 22.03.2024
1.18	20.09.2024	R11200	Date of first issue: 17.04.2014

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	:	
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 medical device For further information, refer to the product technical data sheet.
Restrictions on use	:	Restricted to professional users.

2. HAZARDS IDENTIFICATION

GHS Classification

Skin corrosion/irritation	:	Sub-category 1B
Serious eye damage/eye irritation	:	Category 1
Short-term (acute) aquatic hazard	:	Category 1
Long-term (chronic) aquatic hazard	:	Category 1

GHS label elements

Hazard pictograms :



Signal word	:	Danger
Hazard statements	:	H314 Causes severe skin burns and eye damage. H410 Very toxic to aquatic life with long lasting effects.
Precautionary statements	:	P273 Avoid release to the environment. **Prevention:** P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
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)
N,N-Didecyl-N-methyl-poly(oxyethyl)ammoniopropanoate	94667-33-1	>= 10 - < 20
Tridecanol, branched, ethoxylated	69011-36-5	>= 3 - < 10
ethylene glycol	107-21-1	>= 1 - < 10
propane-1,2-diol	57-55-6	>= 1 - < 10
N-(2-ethylhexyl)-3,5,5-trimethylhexanamide	1700656-13-8	>= 0,25 - < 1

4. FIRST AID MEASURES

General advice : Call a physician immediately.

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

In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with plenty of water.

In case of eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

If swallowed : Rinse mouth.
Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed : Causes severe skin burns and eye damage.

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 : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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. Use personal protective equipment.
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). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Advice on safe handling	:	Prepare the working solution as given on the label(s) and/or the user instructions. Wear personal protective equipment. Avoid contact with skin and 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
ethylene glycol	107-21-1	TWA (Vapour)	25 ppm	ACGIH
		STEL (Vapour)	50 ppm	ACGIH
		STEL (Inhalable fraction, Aerosol only)	10 mg/m3	ACGIH

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	:	> 480 min
Glove thickness	:	0,1 mm
Protective index	:	Class 6
	:	Peha-soft nitrile guard
Eye protection	:	Safety glasses with side-shields conforming to EN166
Skin and body protection	:	Choose body protection according to the amount and concentration of the dangerous substance at the work place. Work uniform or laboratory coat. Remove and wash contaminated clothing before re-use.

Protective measures	:	Ensure that eye flushing systems and safety showers are located close to the working place.
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	:	dark green
Odour	:	odourless
pH	:	7 (20 °C)
Boiling point/boiling range	:	not determined
Flash point	:	does not flash
Density	:	1,016 g/cm3 (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	:	None reasonably foreseeable.
Conditions to avoid	:	Heat Strong sunlight for prolonged periods.
Hazardous decomposition products	:	No hazardous decomposition products are known.

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

Components:

N,N-Didecyl-N-methyl-poly(oxyethyl)ammoniopropanoate (CAS: 94667-33-1):

Acute oral toxicity	:	LD50 Oral (Rat): 1.157 mg/kg Method: OECD Test Guideline 401
Acute dermal toxicity	:	LD50 Dermal (Rabbit): 3.342 mg/kg

Tridecanol, branched, ethoxylated (CAS: 69011-36-5):

Acute oral toxicity	:	LD50 Oral (Rat): 2.000 mg/kg Method: OECD Test Guideline 401
Acute dermal toxicity	:	LD50 Dermal (Rabbit): > 2.000 mg/kg Method: Expert judgement

ethylene glycol (CAS: 107-21-1):

Acute oral toxicity	:	LD50 Oral (Rat): 7.712 mg/kg
Acute dermal toxicity	:	LD50 Dermal (Rat): 3.500 mg/kg

propane-1,2-diol (CAS: 57-55-6):

Acute oral toxicity	:	LD50 Oral (Rat): 22.000 mg/kg Method: Calculation method
Acute dermal toxicity	:	LD50 Dermal (Rabbit): > 2.000 mg/kg

Skin corrosion/irritation

Causes severe burns.

Components:

N,N-Didecyl-N-methyl-poly(oxyethyl)ammoniopropanoate (CAS: 94667-33-1):

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	Corrosive after 3 minutes to 1 hour of exposure

Tridecanol, branched, ethoxylated (CAS: 69011-36-5):

Species	:	Rabbit
Result	:	No skin irritation

ethylene glycol (CAS: 107-21-1):

Result	:	No skin irritation

propane-1,2-diol (CAS: 57-55-6):

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

Serious eye damage/eye irritation

Serious eye damage/eye irritation

Causes serious eye damage.

Components:

N,N-Didecyl-N-methyl-poly(oxyethyl)ammoniopropanoate (CAS: 94667-33-1):

Species	:	Rabbit

Method	:	OECD Test Guideline 405
Result	:	Risk of serious damage to eyes.

Tridecanol, branched, ethoxylated (CAS: 69011-36-5):

Species	:	Rabbit
Method	:	OECD Test Guideline 437
Result	:	Risk of serious damage to eyes.

propane-1,2-diol (CAS: 57-55-6):

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	No eye irritation

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

Tridecanol, branched, ethoxylated (CAS: 69011-36-5):

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

propane-1,2-diol (CAS: 57-55-6):

Test Type	:	Maximisation Test
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Does not cause skin sensitisation.

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.

Components:

ethylene glycol (CAS: 107-21-1):

Assessment	:	May cause damage to organs through prolonged or repeated exposure.

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

Product:

Toxicity to algae/aquatic plants	:	ErC50 (algae): 1,4 mg/l Exposure time: 72 h Test Type: Growth inhibition Method: OECD Test Guideline 201 NOEC (algae): 0,25 mg/l

Components:

N,N-Didecyl-N-methyl-poly(oxyethyl)ammoniopropanoate (CAS: 94667-33-1):

Toxicity to fish	:	LC50 (Lepomis macrochirus (Bluegill sunfish)): 0,52 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0,1 mg/l Exposure time: 48 h Test Type: Immobilization Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EbC50 (Scenedesmus capricornutum (fresh water algae)): 0,34 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 NOEC (Scenedesmus capricornutum (fresh water algae)): 0,044 mg/l Exposure time: 72 h Test Type: static test
M-Factor (Acute aquatic toxicity)	:	10
M-Factor (Chronic aquatic toxicity)	:	1

Ecotoxicology Assessment

Chronic aquatic toxicity	:	Very toxic to aquatic life with long lasting effects.

Tridecanol, branched, ethoxylated (CAS: 69011-36-5):

Toxicity to fish	:	LC50 (Brachydanio rerio (zebrafish)): > 10 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)): > 1 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): > 1 mg/l Exposure time: 72 h Method: OECD Test Guideline 201

ethylene glycol (CAS: 107-21-1):

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 72.860 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 41.100 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	EC50 (Scenedesmus capricornutum (fresh water algae)): > 10.000 mg/l Exposure time: 72 h

propane-1,2-diol (CAS: 57-55-6):

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 40.613 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 18.340 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (green algae)): 19.000 mg/l Exposure time: 72 h Method: OECD Test Guideline 201

N-(2-ethylhexyl)-3,5,5-trimethylhexanamide (CAS: 1700656-13-8):

Toxicity to fish	:	LC50 (Danio rerio (zebra fish)): > 1.000 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0,475 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	ErC50 (Desmodesmus subspicatus (green algae)): 0,962 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 NOEC (Desmodesmus subspicatus (green algae)): 0,31 mg/l Exposure time: 72 h
M-Factor (Acute aquatic toxicity)	:	1
M-Factor (Chronic aquatic toxicity)	:	1

Persistence and degradability

Product:

Biodegradability	:	Remarks: The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion

are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Components:

N,N-Didecyl-N-methyl-poly(oxyethyl)ammoniopropanoate (CAS: 94667-33-1):

Biodegradability : Method: OECD Test Guideline 302B
Remarks: Expected to be biodegradable

Tridecanol, branched, ethoxylated (CAS: 69011-36-5):

Biodegradability : Result: Totally biodegradable

propane-1,2-diol (CAS: 57-55-6):

Biodegradability : Biodegradation: > 70 %

Bioaccumulative potential

Components:

ethylene glycol (CAS: 107-21-1):

Partition coefficient: n-octanol/water : log Pow: -1,36 (25 °C)

propane-1,2-diol (CAS: 57-55-6):

Partition coefficient: n-octanol/water : log Pow: -1,07

Mobility in soil

No data available

Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
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.
Clean container with water.
Offer rinsed packaging material to local recycling facilities.

14. TRANSPORT INFORMATION

ADR

UN number : UN 1903
Proper shipping name : DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (N,N-Didecyl-N-methyl-poly(oxyethyl)ammoniopropanoate)
Class : 8

Packing group	:	II
Labels	:	8
Hazard Identification Number	:	80
Tunnel restriction code	:	(E)
Limited quantity (LQ)	:	1,00 L
Environmentally hazardous	:	yes

UNRTDG

UN number	:	UN 1903
Proper shipping name	:	DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (N,N-Didecyl-N-methyl-poly(oxyethyl)ammoniopropanoate)
Class	:	8
Packing group	:	II
Labels	:	8
Environmentally hazardous	:	no

IATA-DGR

UN/ID No.	:	UN 1903
Proper shipping name	:	Disinfectant, liquid, corrosive, n.o.s. (N,N-Didecyl-N-methyl-poly(oxyethyl)ammoniopropanoate)
Class	:	8
Packing group	:	II
Labels	:	Corrosive
Packing instruction (cargo aircraft)	:	855
Packing instruction (passenger aircraft)	:	851

IMDG-Code

UN number	:	UN 1903
Proper shipping name	:	DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (N,N-Didecyl-N-methyl-poly(oxyethyl)ammoniopropanoate)
Class	:	8
Packing group	:	II
Labels	:	8
EmS Code	:	F-A, S-B
Limited quantity (LQ)	:	1,00 L
Marine pollutant	:	yes

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	:	Product contains substance(s) not listed on TSCA inventory.

16. OTHER INFORMATION

Revision Date	:	20.09.2024

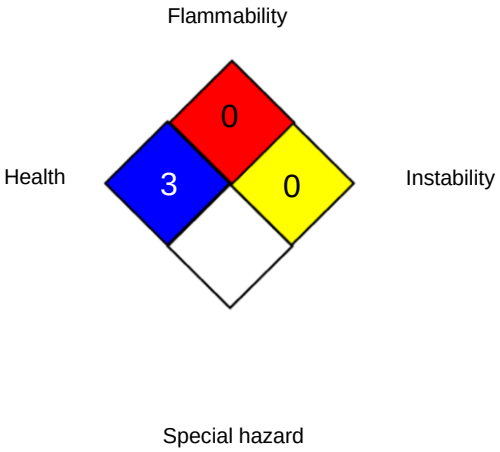
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Safety datasheet sections which have been updated:

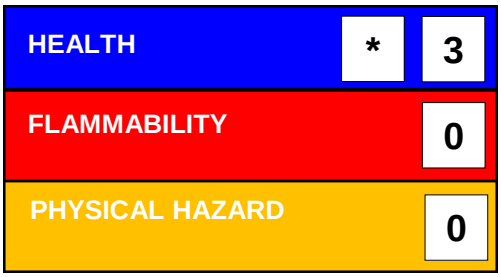
7. Handling and storage

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 / 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