

Safety Data Sheet

Barquat MB-80

Version: 15.12.2006 / EN

1. Identification of the substance/preparation and of the company/undertaking

Trade name : Barquat MB-80

Street address : Lonza Ltd
Muenchensteinerstrasse 38
CH-4002 Basel, Switzerland
Telephone: +41 61 316 81 11

Emergency telephone number : Lonza Ltd, CH-4002 Basel, Switzerland
Telephone: +41 61 313 94 94 (24h)

2. Composition/information on ingredients

Components / EC Label	Concentration
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides (CAS-No.: 68424-85-1) (EEC-No.: 270-325-2) C, N; R22, R34, R50	80 - 82 %
Ethanol (CAS-No.: 64-17-5) (EEC-No.: 200-578-6) F; R11	10 - 15 % (*)
Water (CAS-No.: 7732-18-5) (EEC-No.: 231-791-2)	5 - 10 %

R-phrases see chapter 16

(*) Components with workplace control parameters see chapter 8

3. Hazards identification

Classification

Flammable.
Harmful if swallowed.
Causes burns.
Very toxic to aquatic organisms.

4. First aid measures

Inhalation : Move to fresh air. Call a physician immediately. If breathing is irregular or stopped, administer artificial respiration.

Skin contact : After contact with skin, wash immediately with plenty of soap and water. Call a physician immediately. Take off all contaminated clothing immediately.

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- Eye contact : Immediately flush eye(s) with plenty of water. Call a physician immediately.
- Ingestion : Call a physician immediately. Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

5. Fire-fighting measures

- Suitable extinguishing media : Dry powder, Water spray, Foam
- Specific hazards during fire fighting : Heating or fire can release toxic gas.
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.
- Additional advice : Use water spray to cool unopened containers.

6. Accidental release measures

- Personal precautions : Use respirator when performing operations involving potential exposure to vapour of the product.
- Environmental precautions : Do not flush into surface water or sanitary sewer system.
- Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

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7. Handling and storage

Handling

- Safe handling advice: : Avoid contact with skin and eyes. Provide sufficient air exchange and/or exhaust in work rooms.
- Advice on protection against fire and explosion : Highly flammable. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.

Storage

- Requirements for storage areas and containers : Keep container tightly closed. To maintain product quality, do not store in heat or direct sunlight. Keep in a dry, cool and well-ventilated place.

8. Exposure controls / personal protection

Components with workplace control parameters

Ethanol (CAS-No. 64-17-5):

US ACGIH

- Exposure limit(s) : 1 000 ml/m³
Carcinogenicity: group A4

DFG-MAK/BAT/TRK-Value-List Germany (2002)

- Exposure limit(s) : 500 ml/m³ 960 mg/m³
Carcinogenicity: group 5
Damage to fetus unlikely if the occupational exposure limit values are not exceeded.
mutagenic effects: group 5
- Short term exposure limit : Peak-limit category II(2)

Switzerland SUVA Limit Values (2003)

- Exposure limit(s) : 500 ml/m³ 960 mg/m³
Damage to fetus unlikely if the occupational exposure limit values are not exceeded.

- Short term exposure limit : 1 000 ml/m³ ; 1 920 mg/m³
4 times 15 min. per shift

IDLH value : 3 300 ppm

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Personal protective equipment

Hygiene measures	:	Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.
Respiratory protection	:	In the case of vapour formation use a respirator with an approved filter.
Hand protection	:	Wear suitable gloves.
Eye protection	:	Wear eye/face protection.
Skin and body protection	:	Wear suitable protective clothing, gloves and eye/face protection.

9. Physical and chemical properties

Appearance

State of aggregation	:	liquid
Form	:	viscous
Colour	:	colorless-yellow
Odour	:	alcoholic

Safety data

pH	:	6,5 - 7,5 (10 g/l ; 20 °C)
Setting point	:	< -10 °C
Boiling point/range	:	78 °C (solvent)
Flash point	:	34 - 44 °C
Ignition temperature	:	363 °C (solvent)
Upper explosion limit	:	19 %(V) (solvent)
Lower explosion limit	:	3,3 %(V) (solvent)
Vapour pressure	:	44 hPa (20 °C)

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Density	:	ca. 0,95 g/cm ³ (20 °C) Method: DIN 51757
Water solubility	:	completely soluble
Viscosity, dynamic	:	ca. 300 mPa.s (20 °C) Method: DIN 53015
Relative vapour density	:	no data available
Evaporation rate (Volatility)	:	no data available

10. Stability and reactivity

Conditions to avoid:	:	no data available
Materials to avoid	:	Strong oxidizing agents, Reducing agents
Hazardous decomposition products	:	Heating or fire can release toxic gas., Hydrogen chloride gas, nitrogen oxides (NO _x), Carbon oxides, Other hazardous decomposition products may be formed.
Hazardous reactions	:	polymerization : Hazardous polymerisation does not occur. Stable under normal conditions.

11. Toxicological information

The following toxicological data refer to:

N-Alkyl(C12-16)-N,N-dimethyl-N-benzylammonium chloride (CAS-No.: 68424-85-1)

Acute oral toxicity (LD50)	:	ca. 344 mg/kg Species: rat
Acute dermal toxicity (LD50)	:	ca. 3 340 mg/kg Species: rabbit
Skin irritation	:	Corrosive Species: rabbit Exposure time: 24 h Method: DOT
Eye irritation	:	Corrosive Species: rabbit Method: DOT

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Sensitization	:	not sensitizing Species: guinea pig Buehler Test Method: OECD Test Guideline 406
Genotoxicity in vitro	:	negative Ames test, Salmonella typhimurium Method: OECD 471 negative Chromosome aberration test in vitro, Human lymphocytes Method: OECD 473

12. Ecological information

Ecotoxicity effects

Toxicity to daphnia (EC50)	:	< 1 mg/l Species: Daphnia magna (Water flea) Immobilization Exposure time: 48 h Method: US-EPA
Toxicity to bacteria (EC100)	:	ca. 16 mg/l Species: Pseudomonas putida Growth inhibition Exposure time: 96 h

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The following ecotoxicological data refer to:

N-Alkyl(C12-16)-N,N-dimethyl-N-benzylammonium chloride (CAS-No.: 68424-85-1)

Ecotoxicity effects

- Toxicity to fish (LC50) : 0,28 mg/l
Species: Pimephales promelas (fathead minnow)
Acute toxicity
Exposure time: 96 h
Method: US-EPA
- Toxicity to fish (LC50) : 0,93 mg/l
Species: Oncorhynchus mykiss (rainbow trout)
Acute toxicity
Exposure time: 96 h
Method: US-EPA
- Toxicity to fish (NOEC) : 0,032 mg/l
Species: Pimephales promelas (fathead minnow)
Early-life Stage
Exposure time: 34 d
Method: EPA-FIFRA
- Toxicity to fish (LC50) : 0,515 mg/l
Species: Bluegill sunfish
Acute toxicity
Exposure time: 96 h
Method: US-EPA
- Toxicity to daphnia (EC50) : 0,025 mg/l
Species: Daphnia magna (Water flea)
Immobilization
Exposure time: 48 h
Method: EPA-FIFRA
- Toxicity to daphnia (NOEL) : 0,0042 mg/l
Species: Daphnia magna (Water flea)
Reproduction Test
Exposure time: 21 d
Method: EPA-FIFRA
- Toxicity to algae (ErC50) : 0,049 mg/l
Species: Selastrum capricornutum (green algae)
Cell multiplication inhibition test
Exposure time: 72 h
Method: OECD Test Guideline 201
- Toxicity to bacteria (EC50) : 7,75 mg/l
Species: activated sludge
Respiration inhibition
Exposure time: 3 h
Method: OECD 209

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Toxicity to bacteria (EC100) : ca. 16 mg/l
Species: Pseudomonas putida
Growth inhibition
Exposure time: 96 h

Toxicity to soil dwelling organisms (LC50) : 7 070 mg/kg
Species: earthworms
Acute toxicity
Exposure time: 14 d
Method: OECD 207

Mobility

Behaviour in environmental compartments : Adsorption/Soil
immobile
Method: EPA-FIFRA

Persistence and degradability

Stability in water : hydrolytically stable
Method: EPA-FIFRA

Biodegradability : OECD Confirmatory Test: > 90 %
Method: OECD 303 A

Modified SCAS Test: > 99 %
Testing period: 7 d
Method: OECD 302 A

CO2 Evolution: 95,5 %
Readily biodegradable.
Testing period: 28 d
Method: OECD 301 B

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.

Bioaccumulative potential

Bioaccumulation : Does not bioaccumulate.
Bioconcentration factor (BCF): 79
Species: Bluegill sunfish
Exposure time: 35 d
Method: US-EPA

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13. Disposal considerations

- Waste from residues : Dispose of in compliance with all federal, state and local laws and regulations.
- Contaminated packaging : CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

14. Transport information

- ADR : Class: 8
Packaging group: II
Classification Code: CF1
Labels: Corrosive substance No. 8
Flammable liquid No. 3
Risk No. : 83
- UN/ID No. : UN 2920
Proper shipping name : CORROSIVE LIQUID, FLAMMABLE, N.O.S.
(Alkyldimethylbenzylammoniumchloride; Ethanol)
- RID : Class: 8
Packaging group: II
Classification Code: CF1
Labels: Corrosive substance No. 8
Flammable liquid No. 3
Risk No. : 83
- UN/ID No. : UN 2920
Proper shipping name : CORROSIVE LIQUID, FLAMMABLE, N.O.S.
(Alkyldimethylbenzylammoniumchloride; Ethanol)
- IATA Cargo : Class: 8
Packaging group: II
Labels: Corrosive substance No. 8
Flammable liquid No. 3
Packing instruction (cargo aircraft): 812
- UN/ID No. : UN 2920
Proper shipping name : Corrosive liquid, flammable, n.o.s.
(Alkyldimethylbenzylammoniumchloride; Ethanol)

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IATA Passenger : Class: 8
Packaging group: II
Labels: Corrosive substance No. 8
Flammable liquid No. 3
Packing instruction (passenger and cargo aircraft): 808
UN/ID No. : UN 2920
Proper shipping name : Corrosive liquid, flammable, n.o.s.
(Alkyldimethylbenzylammoniumchloride; Ethanol)

IMDG-Code : Class: 8
Packaging group: II
Labels: Corrosive substance No. 8
Flammable liquid No. 3
EmS: F-E , S-C
Marine pollutant: yes
UN/ID No. : UN 2920
Proper shipping name : CORROSIVE LIQUID, FLAMMABLE, N.O.S.
(Alkyldimethylbenzylammoniumchloride; Ethanol)

49 CFR : Class: 8
Packaging group: II
Labels: Corrosive substance No. 8
UN/ID No. : UN 1903
Proper shipping name : Disinfectants, liquid, corrosive, n.o.s.
(Alkyldimethylbenzylammoniumchloride; Ethanol)

TDG : Class: 8
Packaging group: II
Labels: Corrosive substance No. 8
Flammable liquid No. 3
UN/ID No. : UN 2920
Proper shipping name : CORROSIVE LIQUID, FLAMMABLE, N.O.S.
(Alkyldimethylbenzylammoniumchloride; Ethanol)

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15. Regulatory information

Additional advice : Classification and labelling according to Directive 1999/45/EC.

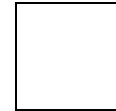
Symbol(s) :



Corrosive



Dangerous for the environment



R-phrase(s)

R10: Flammable.
R22: Harmful if swallowed.
R34: Causes burns.
R50: Very toxic to aquatic organisms.

S-phrase(s)

S16: Keep away from sources of ignition - No smoking.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28: After contact with skin, wash immediately with plenty of soap and water.
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S61: Avoid release to the environment. Refer to special instructions/safety data sheets.

National legislation

Water contaminating class (Germany) : WGK 2: water endangering

Poison class (Switzerland) : GK 3

16. Other information

Other regulations : The components of this product are reported in the following inventories: EINECS, TSCA.

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R-phrases(s)

R11	:	Highly flammable.
R22	:	Harmful if swallowed.
R34	:	Causes burns.
R50	:	Very toxic to aquatic organisms.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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.