

MATERIAL SAFETY DATA SHEET

(According to Regulation 1907/2006/EC as amended by Regulation 830/2015/EU)

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Product name:	Bochemit Opti F
	Version: 1.0

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name: **Bochemit Opti F**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Uses of the mixture: fungicide and insecticide product for long-term preventive protection of wood against mildew, wood-destroying fungi and insects in exteriors and interiors.

Uses advised against: the product may not be used for protection of wood which should be in direct contact with skin, drinking water, food, feeding and for treatment of wood intended for production of children's furniture and toys.

1.3 Details of the supplier of the safety data sheet

Supplier: **BOCHEMIE a.s.**
Address: Lidická 326, 735 81 Bohumín, Czech Republic
Company ID: 293 96 824
Phone number: +420 596 091 111
e-mail: bochemie@bochemie.cz
e-mail of person responsible for the Safety Data Sheet: MSDS@bochemie.cz

1.4 Emergency telephone number

Toxikologické informační středisko, Na Bojišti 1, 128 08 Praha 2, Czech Republic: +420 224 91 92 93 or +420 224 91 54 02.

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

According to Regulation 1272/2008/EC	Skin Corr. 1B, H314; Eye Dam 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410
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For the full wording of hazard statements see section 16.

The most important adverse physicochemical, human health and environmental effects: The mixture causes severe skin burns and eye damage. Very toxic to aquatic life with long lasting effects.

2.2 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: **P102** Keep out of reach of children.
P234 Keep only in original packaging.
P260 Do not breathe mist.
P273 Avoid release to the environment.

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P280 Wear protective rubber gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

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 doctor

P501 Dispose of contents/container in accordance with regional regulation.

Supplemental information:

EUH 208 Contains Propiconazole. May produce an allergic reaction.

2.3 Other hazards

The mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS**3.1 Substances**

Not relevant.

3.2 Mixtures**3.2.1 Substances in the mixture**

Biocidal product contains active substances Alkyl (C12-16) dimethylbenzyl ammonium chlorid, N-(3-aminopropyl)-N-dodecylpropane-1.3-diamine, propiconazole, Tebuconazole a Fenoxycarb.

Substance name	w/w (%)	CAS EC Index No. REACH No.	Classification acc. to 1272/2008/EC, CLP
Alcohols, C12-15, branched and linear, ethoxylated	< 10	106232-83-1 500-294-5 - -	Acute Tox. 4, H302; Eye Dam 1, H318; Aquatic Chronic 3, H412
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	6.0	68424-85-1 270-325-2 - -	Skin Corr. 1B, H314; Acute Tox. 4, H302; Aquatic Acute1, H400 (M=10); Aquatic Chronic 1, H410 (M=1)
2-aminoethanol (only green and brown variant)	< 5	141-43-5 205-483-3 603-030-00-8 01-2119486455-28	Acute Tox. 4, H302-H312-H332; Skin Corr. 1B, H314; STOT SE 3, H335 (SCL, c≥5%); Aquatic Chronic 3, H412
Amides, C8-18 (even numbered) and C18-unsatd., N,N-bis(hydroxyethyl) (only green and brown variant)	< 5	68155-07-7 - - 01-2119490100-53	Skin Irrit. 2, H315; Eye Dam.1, H318; Aquatic Chronic 2, H411
Sodium nitrite	< 1	7632-00-0 231-555-9 007-010-00-4 01-2119471836-27	Ox. Sol. 3, H272; Acute Tox.3, H301; Aquatic Acute 1, H400

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N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	0.8	2372-82-9 219-145-8 - -	Acute Tox. 3, H301; Skin Corr. 1A, H314; STOT RE 2, H373; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 (M=1)
Propiconazole	0.6	60207-90-1 262-104-4 613-205-00-0 -	Acute Tox. 4, H302; Skin Sens. 1, H317; Aquatic Acute 1, H400 (M=1); Aquatic Chronic 1, H410
Tebuconazole	0.6	107534-96-3 403-640-2 - 603-197-00-7	Repr.2, H361d; Acute Tox. 4, H302; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 (M=1)
Fenoxycarb	0.056	72490-01-8 276-696-7 006-086-00-6 -	Carc.2, H351; Aquatic Acute 1, H400 (M=1); Aquatic Chronic 1, H410 (M=10000)

For the full wording of hazard statements see section 16.

SECTION 4: FIRST AID MEASURES

General advice: in case of health problems or symptoms persist, or if in doubt, always seek a physician and provide information from this safety data sheet.

4.1 Description of first aid measures

Inhalation: remove the source of exposure, bring the person to the fresh air, prevent physical strain (including walk), or seek medical attention.

Skin contact: take off contaminated clothing. Wash thoroughly with water and soap (in according corrosive effect) drape with sterile bandage and seek medical attention.

Eye contact: flush immediately with large amounts of fresh water at least 10 minutes; seek medical aid.

Ingestion: rinse mouth with potable water and leave person to drink 0.2-0.5 L. Do not induce vomiting, seek medical aid.

4.2 Most important symptoms and effects, both acute and delayed

The mixture causes severe skin burns and eye damage, may occurs redness, swelling, burning, itching, blisters. Harmful if swallowed – may occur headache, nausea, vomiting - always consult a doctor. (+ only green and brown variant - may cause respiratory irritation.

4.3 Indication of any immediate medical attention and special treatment needed

In case of health problems or should the symptoms persist, always seek medical advice and provide information contained in this MSDS.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable: powder, snow, water-spray, non-flammable product, use extinguishing media according to the character of the fire.

Unsuitable: not known, if use waterjet – risk of release to the sewers and environment.

5.2 Special hazards arising from the substance or mixture

In case of fire the product releases toxic gas: NO_x, CO, CO₂. Avoid burning products.

5.3 Advice for fire fighters

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In case fires wear full protective clothing, protective gloves and suitable respiratory system protection. In case of release to the sewers act upon emergency plans (capturing and/or diluting with water).

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

General advice: in case of health problems or symptoms persist, always seek a doctor and provide information from the material safety data sheet or label of the product. Wear suitable personal protective equipment. Avoid contact with skin and eyes. Do not use the substance in the closed area, ensure adequate ventilation. Do not eat, drink and smoke when handling the product.

6.2 Environmental precautions

Avoid release to environment, the soil, sewers and water courses. In case of accidental discharge of large amount of the concentrated product to the surface water, ground water or waste water, notify local authorities according to local regulations (e.g. fire brigade, police, rescue police, water course administrator).

6.3 Methods and material for containment and cleaning up

In case spill the product, use suitable sorbent (special absorbent for aggressive material or universal absorbent) and put into the labelled container. Avoid accidental discharge into sewers or water courses. In case of accidental discharge into sewers or water courses, dilute the product with sufficient amount of water. Ensure adequate ventilation.

6.4 Reference to other sections

See section 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Handle in good ventilated workplace and wear suitable personal protective equipment and avoid contact with other substances (substances of acid character). Do not eat, drink and smoke when handling the product. Avoid excessive contamination of environment. Store and keep in tightly closed containers to prevent discharge into the environment.

7.2 Conditions for safe storage, including any incompatibilities

Store the mixture in closed original containers. Store in dry and weathering protected areas hedging against potential losses blend into the surroundings and against unauthorized access. Do not store in direct sunlight or near heat sources. Keep away from food, drink, fresh water and feed. Storage temperature: from -15 to + 30°C.

7.3 Specific and use(s)

Important information is provided by the material data safety sheet, by instructions on the label or on the company web pages.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Exposure limits values

Czech Republic - Regulation of Government No. 361/2007

Substance	CAS	PEL (mg/m ³)	NPK-P (mg/m ³)	Conversion factor to ppm
2-aminoethanol	141-43-5	2.5	7.5	0.401

8.1.2 Biological limit values

Czech Republic – according to Decree No 432/2003 are no limits of biological exposure tests.

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8.1.3 Value of DNEL and PNEC

2-aminoethanol

PNEC	fresh water:	0.085 mg/L
	marine water:	0.0085 mg/L
	intermittent:	0.025 mg/L
	fresh water, sediment:	0.425 mg/kg
	marine water, sediment:	0.0425 mg/kg
	soil:	0.035 mg/kg
	sewerage plant:	100 mg/L

DNEL

Long term exposure (systemic):	worker	dermal	1 mg/kg bw/day
	consumer	oral	3.75 mg/kg bw/day
Long term exposure (local):	worker	dermal	0.24 mg/kg bw/day
		inhalation	3.3 mg/m ³
	consumer	inhalation	2 mg/m ³

Alkylbenzyltrimethylammonium chlorid (Stepan)

PNEC	fresh water:	0.0009 mg/L
	marine water:	0.00096 mg/L
	intermittent	0.00016 mg/L
	fresh water, sediment:	12.27 mg/kg
	marine water, sediment:	13.09 mg/kg
	soil:	7 mg/kg
	sewerage plant:	0.4 mg/kg

DNEL

Long term exposure (systemic):	worker	dermal	5.7 mg/kg bw/day
		inhalation	3.96 mg/m ³
Long term exposure (systemic):	consumer	oral	3.4 mg/kg bw/day
		dermal	3.4 mg/kg bw/day
		inhalation	1.64 mg/m ³

Amides, C8-18 (even numbered) and C18-unsatd., N, Nbis(hydroxyethyl)

PNEC	fresh water:	0.0024 mg/l
	marine water:	0.00024 mg/l
	sewerage plant:	830 mg/l

DNEL

Long term exposure (systemic):	worker	dermal	4.16 mg/kg bw/day
		inhalation	73.4 mg/m ³
	consumer	oral	6.25 mg/kg bw/day
		dermal	2.5 mg/kg bw/day
Long term exposure (local):	worker	inhalation	21.7 mg/m ³
		dermal	0.09 mg/cm ²
	consumer	dermal	0.056 mg/cm ²

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation/exhaustion at workplace. Keep usual hygienic rules for handling the product and wear suitable personal protective equipment. Only the personnel familiar with the properties of the product, with handling instructions and principles of personal and environmental protection and wearing personal protective equipment is allowed to handle the product. Contaminated clothes can be reused only after thorough cleanup. Wash hands and face by drinking water and soap and flush mouth with

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drinking water before eating and at the end of working shift and use protective cream on the skin. Do not drink, eat or smoke during the work.

8.2.2 Individual protection measures, such as personal protective equipment

Eye/face protection: protective goggles and protective shield.

Skin protection: protective clothing, closed shoes, treat the exposed skin by cream after washing.

Hand protection: wear rubber (latex, butyl rubber, polyvinylchloride) gloves. Exposure time > 480 min.

Respiratory protection: ensure suitable aspirators.

8.2.3 Environmental exposure controls

Observe instructions for handling and storage, particularly ensure provisions preventing spill of concentrated mixture into watercourses, soil and sewerage (for further information see Handling Conditions according to Act No 254/2001 of Czech Act Coll., on Waters).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance (°C):	liquid
colour	according to colour modification of the product (colourless, green, brown)
Odour:	slightly aromatic
Odour threshold:	not estimated
pH (at 20°C):	10-11.5
Melting point / Freezing point:	not estimated
Initial boiling point and boiling range:	not determined
Flash point:	not determined
Evaporation rate:	not determined
Flammability (solid, gas):	not flammable
Upper/lower flammability or explosive limits:	not flammable
Vapour pressure (°C):	not determined
Vapour density:	not determined
Relative density:	aprox. 1.0
Solubility:	unlimited miscible
Partition coefficient: n-octanol/water:	not determined
Auto-ignition temperature;	not determined
Decomposition temperature:	not estimated
Viscosity:	not estimated
Explosive properties:	not-explosive
Oxidising properties:	does not show oxidising properties

9.2 Other information

Content of volatile organic compounds (VOC): A/e); WB 130 g/l, content < 130 g/l (Directive 2004/42/EC).

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

The mixture reacts with acids and oxidising agents.

10.2 Chemical stability

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The product is stable under normal conditions of usage and storage (keep temperature range for storage).

10.3 Possibility of hazardous reactions

Mixture reacts with acids and strong oxidizing agents, the possibility of a hazardous chemical reaction.

10.4 Conditions to avoid

Avoid raised temperature, long-lasting direct exposure to sun and temperature changes during storage.

10.5 Incompatible materials

Strong oxidising agents and concentrated acids.

10.6 Hazardous decomposition products

Carbon oxides, nitrogen oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

a) acute toxicity

Not established for this mixture.

Calculated (oral): ATE_{mix} > 2,000 mg/kg

Alcohols, C12-15, branched and linear, ethoxylated

LD50 oral = 300-2,000 mg/kg (ATE = 555.6 mg/kg)

Quaternary ammonium compounds, benzyl-c12-16-alkyldimethyl, chlorides

LD50 oral, rat = 397.5 mg/kg

2-aminoethanol

LD50 oral, rat = 1,515 mg/kg

LD50 dermal, rabbit = 2,504 mg/kg

LC50 inhal, rat > 1.3 mg/l/6h

Amides, C8-18 (even numbered)

LD50 oral, rat > 2,000 mg/kg

LD50 dermal, rat > 2,000 mg/kg

Sodium nitrite

LD50, oral, rat = 85 mg/kg

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine

LD50 oral, rat = 261 mg/kg

Propiconazole

LD50 oral, rat = 1,517 mg/kg

LD50, dermal, rat > 4,000 mg/kg

LC50, inhalation, rat > 5,800 mg/m³/4h

Tebuconazole

LD50, oral, rat = 1,700 mg/kg

b) skin corrosion/irritation:

The mixture causes severe skin burns.

c) serious eye damage/irritation:

The mixture causes serious eye damage.

d) respiratory or skin sensitisation:

Criteria for classification are not met based on available data.

Contains Propiconazole. May produce an allergic reaction.

e) germ cell mutagenicity:

Criteria for classification are not met based on available data.

f) carcinogenicity:

Criteria for classification are not met based on available data.

g) reproductive toxicity:

Criteria for classification are not met based on available data.

h) STOT-single exposure:

Criteria for classification are not met based on available data.

i) STOT-repeated exposure:

Criteria for classification are not met based on available data.

j) aspiration hazard:

Criteria for classification are not met based on available data.

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SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity**Alcohols, C12-15, branched and linear, ethoxylated

Chronic toxicity for daphnia NOEC 0.17 mg/l/21days

Quaternary ammonium compounds, benzyl-c12-16-alkyldimethyl, chlorides

Acute toxicity for algae LC50 0.03 mg/l

Acute toxicity for fish LC50 0.515 mg/l

Toxicity for daphnia EC50 0.016 mg/l

Chronic toxicity for algae NOEC 0.009 mg/l

2-aminoethanol

Acute toxicity for daphnia EC50 65 mg/l/48h

Acute toxicity for algae EC50 22 mg/l/72h

Acute toxicity for fish LC50 170 mg/l/96h

Chronic toxicity for fish NOEC 0.85 mg/l/21days

Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)

Chronic toxicity for daphnia NOEC 1-10 mg/l/96 h

Chronic toxicity for algae NOEC 3.9 mg/l

Chronic toxicity for fish NOEC 1-10 mg/l

Sodium Nitrite

Acute toxicity for fish LC50 0,11 mg/l/96 h

Acute toxicity for algae EC50 0,48 mg/l/96 h

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine

Acute toxicity for daphnia, (Daphnia magna, OECD 201) EC50 0.073 mg/l/48h

Acute toxicity for fish (Lepomis macrochirus) LC50 0.45 mg/l/96h

Acute toxicity for algae (Pseudokirchneriella subcapitata) ErC50 0.012 mg/l/72h

Chronic toxicity for daphnia NOEC 0.01 mg/l/21days

Propiconazole

Acute toxicity for daphnia (Daphnia magna, OECD201) EC50 10.2 mg/l/48h

Acute toxicity for fish (Oncorhynchus mykiss, OECD203) LC50 4.3 mg/l/96h

Acute toxicity for algae (Scenedesmus subspicatus) EC50 9 mg/l/72 hod

Tebuconazole

Acute toxicity for daphnia, (Daphnia magna, OECD 201) EC50 2.79 mg/l/48h

Acute toxicity for algae (Pseudokirchneriella subcapitata) IC50 3.8 mg/l/72 h

Acute toxicity for fish (Oncorhynchus mykiss, OECD 203) LC50 4.4 mg/l/96h

Chronic toxicity for daphnia (Daphnia magna) NOEC 0.01 mg/l/21days

Fenoxycarb

Acute toxicity for daphnia (Daphnia magna, OECD 201) EC50 0.6 mg/l/48 h

Acute toxicity for fish (Oncorhynchus mykiss, OECD 203) LC50 0.66 mg/l/48 h

Acute toxicity for algae (Scenedesmus subspicatus) EC50 1.1 mg/l/96 h

Chronic toxicity for daphnia (Daphnia magna) NOEC 0,0000016 mg/l

Chronic toxicity to fish (Oncorhynchus mykiss) NOEC 0.048 mg/l/96 days

12.2 Persistence and degradability

Components of the product are degradable in the environment.

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine

Biodegradable. Method OECD 303 A approx. 96% per 12-15 days; Degradability 91% method OECD 302 B per 28 days. Cultivation method in a closed vessel 79%. Ready biodegradability OECD 301 D per 28 days; Mineralized 73.8% per 28 days.

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Alkylbenzyltrimethylammonium chloride

Biodegradable. Biodegradability >60% per 28 days.

Fenoxycarb

Biodegradable.

Tebuconazol

Hardly biodegradable. Degradability/degree of elimination: 20%. Period: 28 days. Test 301C Ready Biodegradability.

Propiconazol

Stability in water: half-life 28-64 days. Propiconazol is stable in water.

Stability in soil: half-life 66-170 days. Propiconazol is not stable in soil.

Biodegradability: no biodegradable.

2-aminoethanol

Biochemical oxygen demand (BOD₅): 800 mg/g (5 days).

Theoretic oxygen demand: 2.36 mg/mg.

Alcohols, C12-15, branched and linear, ethoxylated

Biodegradable. Method OECD 301B, biodegradation > 60% 28 days, aerobic.

Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)

Biodegradable. Method OECD 301B, biodegradation > 60% 28 days.

12.3 Bioaccumulative potential

Not established for the mixture.

Alkylbenzyltrimethylammonium chloride, Alcohols, C12-15, branched and linear, ethoxylated, Sodium Nitrite

Bioaccumulation is improbable.

2-aminoethanol

Bio concentration potential is low (BCF less than 100 or Log Pow < 3).

Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)

No bioaccumulative potential (log Pow < 3.75)

Propiconazole

The product has low to medium bioaccumulative potential.

Tebuconazole

Bioaccumulative potential is low (BCF 78, log Pow 3.5)

12.4 Mobility in soil

Not established for the mixture.

Alcohols, C12-15, branched and linear, ethoxylated

Partition coefficient, soil organic carbon / water (K_{oc}): > 5000.

Alkylbenzyltrimethyl-ammonium chlorid

Partition coefficient, soil organic carbon / water (K_{oc}): > 5000

2-aminoethanol

Potential for mobility in soil is very high (P_{oc} between 0 and 50).

Henry constant: 2.45 E-7 atm* m³/mol.

Partition coefficient, n-octanol/water (log Pow): -1.31/-1,-1.91 (25°C, pH 7.3)

Partition coefficient, soil organic carbon / water (K_{oc}): 4.62.

Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)

The product is a viscous liquid soluble in water / mixed with water. After dissolving in water it can leak into the soil.

Propiconazole

The product has low to medium mobility in soil.

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12.5 Results of PBT and vPvB assessment

The mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Other adverse effects

Unknown.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

a) Recommended Methods of Substance and Contaminated Packaging Disposal

It is dangerous waste. Personal protective equipment should be used and provisions to be applied when handling and collecting wastes regarding protection of waste spill into environment. Waste hand over to specialized competent company. Dispose of as hazardous waste.

b) Physical/chemical properties that may affect waste treatment options

Avoid contact with acids and strong oxidising and reducing agents and ammonia.

c) Sewage disposal shall be discouraged

Waste should not be disposed of by release to sewers.

d) Special precautions for any recommended waste treatment

Suggestion of waste classification:

subgroup	03 02	wastes from wood preservation
	03 02 05*	other wood preservatives containing dangerous substances

Suggestion of waste container classification:

Containers with residues of the mixture	15 01 10*	packaging containing residues of or contaminated by dangerous substances
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Waste Legal Regulations:

Directive 2008/98/EC on waste and repealing certain Directives. If this mixture and its packaging become waste, the last user has to assign relevant waste code – European Waste Code (EWC code) according to Commission Decision (2000/532/EC).

SECTION 14: TRANSPORT INFORMATION

	(ADR/RID/GGVSE)	IMDG
14.1 UN Number:	UN 3082	UN 3082
14.2 UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (alkylbenzyltrimethylammonium chlorid, N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (alkylbenzyltrimethylammonium chlorid, N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine)
14.3 Transport hazard class:	9	9
14.4 Packing group:	III	III
14.5 Environmental hazards:	YES	YES
14.6 Special precautions for user:	--	--
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code:	--	--
14.8 Other information:		
Danger code (Kemler)	90	90
Limited quantities (LQ)	5 L	5 L

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SECTION 15: REGULATORY INFORMATION

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

Legislation regulating individual issues of the environmental protection and occupational hygiene conditions.

Regulation No. 1907/2006 (REACH).

Regulation No 1272/2008/ES (CLP)

Regulation (EU) No. 528/2012 concerning the making available on the market and use of biocidal products.

15.2 Chemical safety assessment

A Chemical Safety Assessment was not carried out for the mixture.

SECTION 16: OTHER INFORMATION

a) Changes during Revision of the MSDS

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b) A key or legend to abbreviations and acronyms used

Ox. Sol. 3	Oxidising solid, cat. 3
Acute Tox. 3, 4	Acute toxicity of cat. 3, 4
Eye Dam. 1	Serious eye damage cat. 1
Skin Corr. 1A and 1B	Skin corrosion of cat. 1A and 1B
Skin Irrit. 2	Skin irritation cat. 2
Skin Sens. 1	Skin Sensitization cat. 1
STOT SE 3	Specific target organ toxicity – single exposure cat.3
STOT RE 2	Specific target organ toxicity – repeated exposure cat.2
Repr. 2	Reproductive toxicity of cat.2
Carc. 2	Carcinogenicity category 2
Aquatic Acute 1	Hazardous to the aquatic environment of cat. 1
Aquatic Chronic 1, 2, 3	Hazardous to the aquatic environment cat. 1, 2, 3
LC50	The median lethal concentration, 50 percent
EC50	Half maximal effective concentration refers to the concentration of a drug, antibody or toxicant which induces a response halfway between the baseline and maximum after a specified exposure time.
LD50	Lethal dose, 50 percent
IC50	Half maximal inhibitory concentration
NPK-P	Maximum Permissible Concentration
PEL	Permissible Exposure Limit
PBT	Persistent, Bioaccumulative and Toxic chemicals
vPvB	Very Persistent and Very Bioaccumulative chemicals
PNEC	Predicted no-effect concentration (the concentration of a chemical which marks the limit at which below no adverse effects of exposure in an ecosystem are measured).
DNEL	Derived no-effect level (the level of exposure to a substance above which humans should not be exposed).
NOEC	No observed effect concentration (a risk assessment parameter that represents the concentration of a pollutant that will not harm the species involved, with respect to the effect that is studied)
WB	Water based

MATERIAL SAFETY DATA SHEET

(According to Regulation 1907/2006/EC as amended by Regulation 830/2015/EU)

Date of issue: 3 October 2017

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Date of revision: --

Previous date: --

Version: 1.0

Product name:

Bochemit Opti F

c) Key literature references and sources for data

Information contained herein is based on our best knowledge and current legislation. The Material Safety Data Sheet was elaborated on grounds of information provided by suppliers of particular components of the mixture. The MSDS contains information needed for security of safety and occupational health protection and the environmental protection. The mentioned information refers to present state of knowledge and experience and is in accordance with legislation in force. It cannot be considered warrantee of suitability or usability of the product for particular application.

d) The methods of evaluating information

The mixture was classified according to method described in Regulation 1272/2008/EC.

e) List of relevant hazard statements

H 272	May intensify fire; oxidizer
H 301	Toxic if swallowed.
H 302	Harmful if swallowed.
H 312	Harmful in contact with skin.
H 314	Causes severe skin burns and eye damage.
H 315	Causes skin irritation
H 317	May cause an allergic skin reaction.
H 318	Causes serious eye damage
H 332	Harmful if inhaled.
H 335	May cause respiratory irritation.
H 351	Suspected of causing cancer
H 361d	Suspected of damaging the unborn child.
H 373	May cause damage to organs through prolonged or repeated exposure
H 400	Very toxic to aquatic life.
H 410	Very toxic to aquatic life with long lasting effects.
H 411	Toxic to aquatic life with long lasting effects.
H 412	Harmful to aquatic life with long lasting effects.

f) Instructions for Training

Personnel handling the preparation must be instructed about manipulation risks and on requirements for health and environmental protection (relevant provisions of the Labor Code as amended) and further, they must be demonstrably familiarized with dangerous properties, occupational health and environmental protection principles and first aid measures (Act No. 258/2000 Coll. on public health protection as amended).

g) Recommended Use Limitations

The mixture should not be used for any other purpose than determined (see section 1.2). As specific conditions of use of the substance are beyond control of the supplier, the user is the only responsible to adapt the information and warnings contained herein to local legislation and regulations. The safety information describes the product from perspective of its safety and it cannot be deemed technical specifications of the product.