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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
Revision date / version: 16.01.2017 / 0001  
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Valid from: 16.01.2017  
PDF print date: 26.01.2017  
Bechtol Premium  
REF 536

## Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

**Bechtol Premium**  
**REF 536**

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

##### Relevant identified uses of the substance or mixture:

It is a medical product  
Disinfectant cleaner

##### Uses advised against:

No information available at present.

#### 1.3 Details of the supplier of the safety data sheet

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Alfred Becht GmbH Postfach 1145, D-77601 Offenburg, Carl-Zeiss-Str. 16, 77656 Offenburg, Germany  
Phone:+49 781 60586-0, Fax:+49 781 60586-40  
www.becht-online.de

E-mail address of the competent person: klug@becht-online.de

#### 1.4 Emergency telephone number

##### Emergency information services / official advisory body:

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##### Telephone number of the company in case of emergencies:

During business hours (Monday - Friday 8 am - 4.30 pm), Tel:+49 (0)781 / 60586-0

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class	Hazard category	Hazard statement
Acute Tox.	4	H332-Harmful if inhaled.
Skin Corr.	1B	H314-Causes severe skin burns and eye damage.
Skin Sens.	1	H317-May cause an allergic skin reaction.
Aquatic Acute	1	H400-Very toxic to aquatic life.
Aquatic Chronic	1	H410-Very toxic to aquatic life with long lasting effects.

#### 2.2 Label elements

##### Labeling according to Regulation (EC) 1272/2008 (CLP)

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**Danger**

H332-Harmful if inhaled. H314-Causes severe skin burns and eye damage. H317-May cause an allergic skin reaction. H410-Very toxic to aquatic life with long lasting effects.

P260-Do not breathe vapours or spray. P273-Avoid release to the environment. P280-Wear protective gloves / protective clothing and eye protection / face protection.

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 / shower. P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310-Immediately call a POISON CENTER / doctor.

Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides  
 2,2'-Iminodiethylamine  
 N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine  
 Tridecylamine, branched and linear

**2.3 Other hazards**

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

**SECTION 3: Composition/information on ingredients**

**3.1 Substance**

n.a.

**3.2 Mixture**

<b>Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides</b>	
<b>Registration number (REACH)</b>	---
<b>Index</b>	---
<b>EINECS, ELINCS, NLP</b>	269-919-4
<b>CAS</b>	68391-01-5
<b>content %</b>	5-10
<b>Classification according to Regulation (EC) 1272/2008 (CLP)</b>	Acute Tox. 4, H302 Skin Corr. 1B, H314 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1)

<b>2,2'-Iminodiethylamine</b>	
<b>Registration number (REACH)</b>	01-2119473793-27-XXXX
<b>Index</b>	612-058-00-X

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<b>EINECS, ELINCS, NLP</b>	203-865-4
<b>CAS</b>	111-40-0
<b>content %</b>	1-5
<b>Classification according to Regulation (EC) 1272/2008 (CLP)</b>	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Acute Tox. 2, H330 STOT SE 3, H335

<b>N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine</b>	
<b>Registration number (REACH)</b>	---
<b>Index</b>	---
<b>EINECS, ELINCS, NLP</b>	219-145-8
<b>CAS</b>	2372-82-9
<b>content %</b>	1-5
<b>Classification according to Regulation (EC) 1272/2008 (CLP)</b>	Acute Tox. 3, H301 STOT RE 2, H373 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1) Skin Corr. 1A, H314

<b>Tridecylamine, branched and linear</b>	
<b>Registration number (REACH)</b>	01-2119461722-40-XXXX
<b>Index</b>	---
<b>EINECS, ELINCS, NLP</b>	289-185-9
<b>CAS</b>	86089-17-0
<b>content %</b>	1-2,5
<b>Classification according to Regulation (EC) 1272/2008 (CLP)</b>	Acute Tox. 4, H302 Skin Corr. 1B, H314 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)

<b>Nitrilotriacetic acid</b>	
<b>Registration number (REACH)</b>	01-2119968928-12-XXXX
<b>Index</b>	---
<b>EINECS, ELINCS, NLP</b>	205-355-7
<b>CAS</b>	139-13-9
<b>content %</b>	0,1-<1
<b>Classification according to Regulation (EC) 1272/2008 (CLP)</b>	Eye Irrit. 2, H319 Carc. 2, H351

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.

The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3.1/3.2 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

Never pour anything into the mouth of an unconscious person!

#### Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

#### Skin contact

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Wash thoroughly using copious water - remove contaminated clothing immediately. If skin irritation occurs (redness etc.), consult doctor.

Cauterizations not treated lead to wounds difficult to heal.

### **Eye contact**

Remove contact lenses.

Wash thoroughly for several minutes using copious water - call doctor immediately, have Data Sheet available.

Protect uninjured eye.

Follow-up examination by an ophthalmologist

### **Ingestion**

Rinse the mouth thoroughly with water.

Do not induce vomiting - give copious water to drink. Consult doctor immediately.

### **4.2 Most important symptoms and effects, both acute and delayed**

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

The following may occur:

Corrosive burns on skin as well as mucous membrane possible.

Necrosis

Risk of serious damage to eyes.

Corneal damage.

Danger of blindness

Ingestion:

Pain in the mouth and throat

Gastrointestinal disturbances

Oesophageal perforation

Gastric perforation

### **4.3 Indication of any immediate medical attention and special treatment needed**

Symptomatic treatment.

## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

Adapt to the nature and extent of fire.

Water jet spray/foam/CO2/dry extinguisher

#### **Unsuitable extinguishing media**

High volume water jet

### **5.2 Special hazards arising from the substance or mixture**

In case of fire the following can develop:

Oxides of carbon

Oxides of nitrogen

Toxic gases

### **5.3 Advice for firefighters**

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

According to size of fire

Full protection, if necessary.

Dispose of contaminated extinction water according to official regulations.

## **SECTION 6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Keep unprotected persons away.

Ensure sufficient supply of air.

Avoid inhalation, and contact with eyes or skin.

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If applicable, caution - risk of slipping.

## 6.2 Environmental precautions

If leakage occurs, dam up.  
 Resolve leaks if this possible without risk.  
 Prevent surface and ground-water infiltration, as well as ground penetration.  
 Prevent from entering drainage system.  
 If accidental entry into drainage system occurs, inform responsible authorities.

## 6.3 Methods and material for containment and cleaning up

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth, sawdust) and dispose of according to Section 13.  
 Fill the absorbed material into lockable containers.  
 Neutralising is possible (only from a specialist).  
 Diluting with water is possible.  
 Flush residue using copious water.

## 6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

# SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

## 7.1 Precautions for safe handling

### 7.1.1 General recommendations

Ensure good ventilation.  
 Avoid inhalation of the vapours.  
 Avoid contact with eyes or skin.  
 Handle and open container with care.  
 Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.  
 Observe directions on label and instructions for use.  
 Use working methods according to operating instructions.

### 7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.  
 Wash hands before breaks and at end of work.  
 Keep away from food, drink and animal feedingstuffs.  
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

## 7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.  
 Store product closed and only in original packing.  
 Not to be stored in gangways or stair wells.  
 Under all circumstances prevent penetration into the soil.  
 Do not store with acids.  
 Do not use alkali sensitive materials.  
 Store at room temperature.  
 Store in a dry place.

## 7.3 Specific end use(s)

No information available at present.

# SECTION 8: Exposure controls/personal protection

## 8.1 Control parameters

GB	Chemical Name	2,2'-Iminodiethylamine	Content %:1-5
	WEL-TWA: 1 ppm (4,3 mg/m <sup>3</sup> )	WEL-STEL: ---	---
	Monitoring procedures:	- Draeger - Amine Test (81 01 061)	
	BMGV: ---	Other information:	Sk

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WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period)  
EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.  
\*\* = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

## 8.2 Exposure controls

### 8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.  
If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.  
Applies only if maximum permissible exposure values are listed here.  
Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.  
These are specified by e.g. EN 14042.  
EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

### 8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.  
Wash hands before breaks and at end of work.  
Keep away from food, drink and animal feedingstuffs.  
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:  
Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:  
Chemical resistant protective gloves (EN 374).  
If applicable  
Protective Neoprene® / polychloroprene gloves (EN 374).  
Protective nitrile gloves (EN 374)  
Protective Viton® / fluoroelastomer gloves (EN 374)  
Minimum layer thickness in mm:  
0,5  
Permeation time (penetration time) in minutes:  
≥ 480  
Protective hand cream recommended.  
The breakthrough times determined in accordance with EN 374 Part 3 were not obtained under practical conditions.  
The recommended maximum wearing time is 50% of breakthrough time.

Skin protection - Other:  
Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:  
If OES or MEL is exceeded.  
Filter A P2 (EN 14387), code colour brown, white  
Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:  
Not applicable

Additional information on hand protection - No tests have been performed.  
In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.  
Selection of materials derived from glove manufacturer's indications.  
Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

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Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

### 8.2.3 Environmental exposure controls

No information available at present.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Colourless
Odour:	Perfumed
Odour threshold:	Not determined
pH-value:	11,0-11,6 (100 g/l, 20°C)
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	>100 °C
Flash point:	n.a.
Evaporation rate:	Not determined
Flammability (solid, gas):	n.a.
Lower explosive limit:	n.a.
Upper explosive limit:	n.a.
Vapour pressure:	~10 kPa (20°C, water)
Vapour density (air = 1):	Not determined
Density:	1,005-1,015 g/cm <sup>3</sup>
Bulk density:	Not determined
Solubility(ies):	Not determined
Water solubility:	Mixable
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	n.a.
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	No
Oxidising properties:	No

### 9.2 Other information

Miscibility:	Not determined
Fat solubility / solvent:	Not determined
Conductivity:	Not determined
Surface tension:	Not determined
Solvents content:	Not determined

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

The product has not been tested.

### 10.2 Chemical stability

Stable with proper storage and handling.

### 10.3 Possibility of hazardous reactions

Avoid contact with strong acids (exothermic reaction possible).

### 10.4 Conditions to avoid

None known

### 10.5 Incompatible materials

Avoid contact with strong acids.

Avoid contact with strong oxidizing agents.

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Avoid contact with alkali sensitive materials.

### 10.6 Hazardous decomposition products

No decomposition when used as directed.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Possibly more information on health effects, see Section 2.1 (classification).

#### Bechtol Premium REF 536

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	ATE	>2000	mg/kg			calculated value
Acute toxicity, by dermal route:	ATE	>5000	mg/kg			calculated value
Acute toxicity, by inhalation:	ATE	1,55	mg/l/4h			Aerosol, calculated value
Acute toxicity, by inhalation:	ATE	11,11	mg/l/4h			Vapours, calculated value
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

#### Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	344	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	3340	mg/kg	Rabbit		
Skin corrosion/irritation:				Rabbit		Corrosive
Serious eye damage/irritation:				Rabbit		Corrosive
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitising
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Symptoms:						respiratory distress, coughing, circulatory collapse



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<b>2,2'-Iminodiethylamine</b>						
<b>Toxicity / effect</b>	<b>Endpoint</b>	<b>Value</b>	<b>Unit</b>	<b>Organism</b>	<b>Test method</b>	<b>Notes</b>
Acute toxicity, by oral route:	LD50	1140	mg/kg	Rat		
Acute toxicity, by oral route:	LD50	1533	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	1046	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LC50	1,8	mg/l/4h	Rat		Vapours
Acute toxicity, by inhalation:	NOAEL	0,07	mg/l	Rat	OECD 403 (Acute Inhalation Toxicity)	Aerosol
Skin corrosion/irritation:				Rabbit		Corrosive
Serious eye damage/irritation:						Corrosive
Serious eye damage/irritation:				Rabbit		Irreversible effects, Corrosive
Respiratory or skin sensitisation:						Sensitising (skin contact)
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Sensitising (skin contact)
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Symptoms:						respiratory distress, burning of the membranes of the nose and throat, coughing, mucous membrane irritation
Specific target organ toxicity - single exposure (STOT-SE), inhalative:						May cause respiratory irritation.

<b>N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine</b>						
<b>Toxicity / effect</b>	<b>Endpoint</b>	<b>Value</b>	<b>Unit</b>	<b>Organism</b>	<b>Test method</b>	<b>Notes</b>
Acute toxicity, by oral route:	LD50	261	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Corrosive
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitizing
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	9	mg/kg	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	

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Specific target organ toxicity - repeated exposure (STOT-RE), dermal:	NOAL	15	mg/kg	Rat		
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<b>Tridecylamine, branched and linear</b>						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	820	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Skin corrosion/irritation:				Rabbit		Corrosive
Serious eye damage/irritation:				Rabbit		Corrosive

<b>Nitrilotriacetic acid</b>						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit		Analogous conclusion
Acute toxicity, by inhalation:	LC50	>5	mg/l/4h	Rat		Analogous conclusion
Skin corrosion/irritation:				Rabbit		Not irritant
Serious eye damage/irritation:				Rabbit		Irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitizing (Analogous conclusion), Analogous conclusion
Carcinogenicity:						Studies on carcinogenic effects in animal experiments., Carc. 2

## SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

<b>Bechtol Premium REF 536</b>							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:							n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.
12.2. Persistence and degradability:							n.d.a.
12.3. Bioaccumulative potential:							n.d.a.
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT and vPvB assessment							n.d.a.
12.6. Other adverse effects:							n.d.a.

**Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides**

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Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	NOEC/NOEL	34d	0,032	mg/l	Pimephales promelas	U.S. EPA ECOTOX Database	
12.1. Toxicity to fish:	LC50	96h	0,28	mg/l	Pimephales promelas	U.S. EPA ECOTOX Database	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	0,0042	mg/l	Daphnia magna	U.S. EPA, (4th Ed. EPA 6)	
12.1. Toxicity to daphnia:	LC50	48h	0,016	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	ErC50	72h	0,049	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	>90	%		OECD 303 A (Simulation Test - Aerobic Sewage Treatment - Activated Sludge Units)	Readily biodegradable
12.2. Persistence and degradability:							The surfactant(s) contained in this mixture 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.
Toxicity to bacteria:	EC50	3h	7,75	mg/l	activated sludge		

**2,2'-Iminodiethylamine**

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	248	mg/l	Leuciscus idus		
12.1. Toxicity to fish:	LC50	96h	430	mg/l	Poecilia reticulata	84/449/EEC C.1	

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12.1. Toxicity to daphnia:	LC50	48h	16	mg/l			
12.1. Toxicity to daphnia:	EC50	48h	16	mg/l	Daphnia magna	DIN 38412 T.11	
12.1. Toxicity to algae:	EC50	72h	1164	mg/l	Selenastrum capricornutum	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:	BOD	21d	87	%	activated sludge	OECD 301 D (Ready Biodegradability - Closed Bottle Test)	Readily biodegradable
12.3. Bioaccumulative potential:	BCF	42d	6,3		Cyprinus caprio	OECD 305 (Bioconcentration - Flow-Through Fish Test)	A notable biological accumulation potential is not to be expected (LogPow 1-3).
Toxicity to bacteria:	LC50	17h	96	mg/l			
Toxicity to bacteria:	NOEC/NOEL	3h	6	mg/l	activated sludge		
Other organisms:	NOEC/NOEL	56d	500	mg/kg	Eisenia foetida	OECD 222 (Earthworm Reproduction Test (Eisenia fetida/Eisenia andrei))	
Other information:							Does not contain any organically bound halogens which can contribute to the AOX value in waste water.

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

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	0,68	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	LC50	24h	2	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	ErC50	96h	0,054	mg/l	Pseudokirchnerie lla subcapitata	U.S. EPA ECOTOX Database	
12.2. Persistence and degradability:			79	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	Readily biodegradable

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12.2. Persistence and degradability:		28d	96	%		OECD 302 B (Inherent Biodegradability - Zahn-Wellens/EMPA Test)	
12.2. Persistence and degradability:							The surfactant(s) contained in this mixture 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.
Toxicity to bacteria:	EC50	3h	18	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
Toxicity to bacteria:	EC50		1-5	mg/l	Pseudomonas putida	DIN 38412 T.8	

**Tridecylamine, branched and linear**

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	0,0654	mg/l	Pimephales promelas		Analogous conclusion
12.1. Toxicity to daphnia:	EC50	48h	0,015	mg/l	Daphnia magna		Analogous conclusion
12.1. Toxicity to algae:	EC50	72h	0,015	mg/l	Desmodesmus subspicatus		
12.2. Persistence and degradability:							Not readily biodegradable
12.3. Bioaccumulative potential:							Not to be expected

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Toxicity to bacteria:	EC20	30min	~10	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
Other information:							Does not contain any organically bound halogens which can contribute to the AOX value in waste water.

Nitrilotriacetic acid							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>100	mg/l	Pimephales promelas		Analogous conclusion
12.1. Toxicity to fish:	NOEC/NOEL	>60d	>1	mg/l	Pimephales promelas		Analogous conclusion
12.1. Toxicity to daphnia:	NOEC/NOEL	>60d	>1	mg/l	Gammarus sp.		Analogous conclusion
12.1. Toxicity to daphnia:	EC50	96h	>100	mg/l	Daphnia magna		Analogous conclusion
12.1. Toxicity to algae:	EC50	72h	>100	mg/l	Scenedesmus subspicatus		Analogous conclusion
12.2. Persistence and degradability:	BOD	28d	>70	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Readily biodegradable
12.3. Bioaccumulative potential:		96h	<3		Brachydanio rerio		A notable biological accumulation potential is not to be expected (LogPow 1-3).

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)

07 06 01 aqueous washing liquids and mother liquors

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

E.g. suitable incineration plant.

E.g. dispose at suitable refuse site.

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### For contaminated packing material

Pay attention to local and national official regulations.  
 Empty container completely.  
 Uncontaminated packaging can be recycled.  
 Dispose of packaging that cannot be cleaned in the same manner as the substance.

## SECTION 14: Transport information

### General statements

14.1. UN number: 1903

#### Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:  
 UN 1903 DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (QUATERNARY AMMONIUM COMPOUNDS , BENZYL-C12-18-ALKYLDIMETHYL, CHLORIDES,N,N-BIS(3-AMINOPROPYL)DODECYLAMINE)



14.3. Transport hazard class(es): 8  
 14.4. Packing group: II  
 Classification code: C9  
 LQ: 1 L  
 14.5. Environmental hazards: environmentally hazardous  
 Tunnel restriction code: E

#### Transport by sea (IMDG-code)

14.2. UN proper shipping name:  
 DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C 12-18-ALKYLDIMETHYL, CHLORIDES,N,N-BIS(3-AMINOPROPYL)DODECYLAMINE)



14.3. Transport hazard class(es): 8  
 14.4. Packing group: II  
 EmS: F-A, S-B  
 Marine Pollutant: Yes  
 14.5. Environmental hazards: environmentally hazardous

#### Transport by air (IATA)

14.2. UN proper shipping name:  
 Disinfectant, liquid, corrosive, n.o.s. (QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C 12-18-ALKYLDIMETHYL, CHLORIDES,N,N-BIS(3-AMINOPROPYL)DODECYLAMINE)



14.3. Transport hazard class(es): 8  
 14.4. Packing group: II  
 14.5. Environmental hazards: Not applicable

### 14.6. Special precautions for user

Persons employed in transporting dangerous goods must be trained.  
 All persons involved in transporting must observe safety regulations.  
 Precautions must be taken to prevent damage.

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Freighted as packaged goods rather than in bulk, therefore not applicable.  
 Minimum amount regulations have not been taken into account.  
 Danger code and packing code on request.  
 Comply with special provisions.

## SECTION 15: Regulatory information

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

Observe restrictions:  
 Comply with trade association/occupational health regulations.

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Observe incident regulations.

Observe youth employment law (German regulation).  
 Observe law on protection of expectant mothers (German regulation).

## 15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

## SECTION 16: Other information

Revised sections: n.a.  
 These details refer to the product as it is delivered.  
 Employee instruction/training in handling hazardous materials is required.  
 Employee training in handling dangerous goods is required.

### Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Acute Tox. 4, H332	Classification according to calculation procedure.
Skin Corr. 1B, H314	Classification according to calculation procedure.
Skin Sens. 1, H317	Classification according to calculation procedure.
Aquatic Acute 1, H400	Classification according to calculation procedure.
Aquatic Chronic 1, H410	Classification according to calculation procedure.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

H330 Fatal if inhaled.  
 H314 Causes severe skin burns and eye damage.  
 H301 Toxic if swallowed.  
 H302 Harmful if swallowed.  
 H312 Harmful in contact with skin.  
 H314 Causes severe skin burns and eye damage.  
 H317 May cause an allergic skin reaction.  
 H319 Causes serious eye irritation.  
 H335 May cause respiratory irritation.  
 H351 Suspected of causing cancer.  
 H373 May cause damage to organs through prolonged or repeated exposure.  
 H400 Very toxic to aquatic life.  
 H410 Very toxic to aquatic life with long lasting effects.

Acute Tox. — Acute toxicity - inhalation  
 Skin Corr. — Skin corrosion  
 Skin Sens. — Skin sensitization  
 Aquatic Acute — Hazardous to the aquatic environment - acute  
 Aquatic Chronic — Hazardous to the aquatic environment - chronic  
 Acute Tox. — Acute toxicity - oral  
 Acute Tox. — Acute toxicity - dermal  
 STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation  
 STOT RE — Specific target organ toxicity - repeated exposure  
 Eye Irrit. — Eye irritation  
 Carc. — Carcinogenicity

**Any abbreviations and acronyms used in this document:**



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AC Article Categories

acc., acc. to according, according to

ACGIH American Conference of Governmental Industrial Hygienists

ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)

AOEL Acceptable Operator Exposure Level

AOX Adsorbable organic halogen compounds

approx. approximately

Art., Art. no. Article number

ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)

BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)

BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)

BCF Bioconcentration factor

BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)

BHT Butylhydroxytoluol (= 2,6-Di-*t*-butyl-4-methyl-phenol)

BMGV Biological monitoring guidance value (EH40, UK)

BOD Biochemical oxygen demand

BSEF Bromine Science and Environmental Forum

bw body weight

CAS Chemical Abstracts Service

CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids

CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques

CIPAC Collaborative International Pesticides Analytical Council

CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)

CMR carcinogenic, mutagenic, reproductive toxic

COD Chemical oxygen demand

CTFA Cosmetic, Toiletry, and Fragrance Association

DMEL Derived Minimum Effect Level

DNEL Derived No Effect Level

DOC Dissolved organic carbon

DT50 Dwell Time - 50% reduction of start concentration

DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)

dw dry weight

e.g. for example (abbreviation of Latin 'exempli gratia'), for instance

EC European Community

ECHA European Chemicals Agency

EEA European Economic Area

EEC European Economic Community

EINECS European Inventory of Existing Commercial Chemical Substances

ELINCS European List of Notified Chemical Substances

EN European Norms

EPA United States Environmental Protection Agency (United States of America)

ERC Environmental Release Categories

ES Exposure scenario

etc. et cetera

EU European Union

EWC European Waste Catalogue

Fax. Fax number

gen. general

GHS Globally Harmonized System of Classification and Labelling of Chemicals

GWP Global warming potential

HET-CAM Hen's Egg Test - Chorionallantoic Membrane

HGWP Halocarbon Global Warming Potential

IARC International Agency for Research on Cancer

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IATA International Air Transport Association  
IBC Intermediate Bulk Container  
IBC (Code) International Bulk Chemical (Code)  
IC Inhibitory concentration  
IMDG-code International Maritime Code for Dangerous Goods  
incl. including, inclusive  
IUCLID International Uniform Chemical Information Database  
LC lethal concentration  
LC50 lethal concentration 50 percent kill  
LCLo lowest published lethal concentration  
LD Lethal Dose of a chemical  
LD50 Lethal Dose, 50% kill  
LDLo Lethal Dose Low  
LOAEL Lowest Observed Adverse Effect Level  
LOEC Lowest Observed Effect Concentration  
LOEL Lowest Observed Effect Level  
LQ Limited Quantities  
MARPOL International Convention for the Prevention of Marine Pollution from Ships  
n.a. not applicable  
n.av. not available  
n.c. not checked  
n.d.a. no data available  
NIOSH National Institute of Occupational Safety and Health (United States of America)  
NOAEC No Observed Adverse Effective Concentration  
NOAEL No Observed Adverse Effect Level  
NOEC No Observed Effect Concentration  
NOEL No Observed Effect Level  
ODP Ozone Depletion Potential  
OECD Organisation for Economic Co-operation and Development  
org. organic  
PAH polycyclic aromatic hydrocarbon  
PBT persistent, bioaccumulative and toxic  
PC Chemical product category  
PE Polyethylene  
PNEC Predicted No Effect Concentration  
POCP Photochemical ozone creation potential  
ppm parts per million  
PROC Process category  
PTFE Polytetrafluorethylene  
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)  
REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.  
RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)  
SADT Self-Accelerating Decomposition Temperature  
SAR Structure Activity Relationship  
SU Sector of use  
SVHC Substances of Very High Concern  
Tel. Telephone  
ThOD Theoretical oxygen demand  
TOC Total organic carbon  
TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)  
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods  
VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))  
VOC Volatile organic compounds  
vPvB very persistent and very bioaccumulative

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WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).

WHO World Health Organization

wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.

No responsibility.

These statements were made by:

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