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Revision date / version: 01.11.2021 / 0003  
Replacing version dated / version: 03.07.2015 / 0002  
Valid from: 01.11.2021  
PDF print date: 01.11.2021  
hand cleaner duo 3 l  
Art.: 9080067

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

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

**1.1 Product identifier**

**hand cleaner duo 3 l**  
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**1.2 Relevant identified uses of the substance or mixture and uses advised against**  
**Relevant identified uses of the substance or mixture:**

Cosmetic preparation  
Skin cleaning

**Uses advised against:**

No information available at present.

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

BTI Befestigungstechnik GmbH & Co. KG  
Salzstr. 51  
74653 Ingelfingen  
Tel.: +49 7940 141 141  
Fax: +49 7940 141 9141  
Email: info@bti.de  
Homepage: www.bti.de

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

**1.4 Emergency telephone number**

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

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

+49 (0) 700 / 24 112 112 (BRC)  
+1 872 5888271 (BRC)

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**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

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

Cosmetics regulations are to be applied.

**2.2 Label elements**

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

Not applicable

Cosmetics regulations are to be applied.



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### 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 %).

The mixture does not contain any substance with endocrine disrupting properties (< 0,1 %).

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

n.a.

### 3.2 Mixtures

<b>Sulfuric acid, mono-C12-18-alkyl esters, sodium salts</b>	
<b>Registration number (REACH)</b>	01-2119490225-39-XXXX
<b>Index</b>	---
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	273-257-1
<b>CAS</b>	68955-19-1
<b>content %</b>	5-<10
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412
<b>Specific Concentration Limits and ATE</b>	Eye Dam. 1, H318: >=20 % Eye Irrit. 2, H319: >=10 %

<b>Isotridecanol, ethoxylated</b>	
<b>Registration number (REACH)</b>	---
<b>Index</b>	---
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	---
<b>CAS</b>	9043-30-5
<b>content %</b>	1-<3
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Eye Dam. 1, H318

<b>1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C12-18(even numbered) acyl) derivs., hydroxides, inner salts</b>	
<b>Registration number (REACH)</b>	01-2119513359-38-XXXX
<b>Index</b>	---
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	931-513-6
<b>CAS</b>	---
<b>content %</b>	1-<3
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Eye Dam. 1, H318 Aquatic Chronic 3, H412
<b>Specific Concentration Limits and ATE</b>	Eye Dam. 1, H318: >=10,00001 % Eye Irrit. 2, H319: >=4 %

<b>Orange, sweet, ext.</b>	
<b>Registration number (REACH)</b>	01-2119493353-35-XXXX
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<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	232-433-8
<b>CAS</b>	8028-48-6
<b>content %</b>	0,25-<1
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)

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 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

First-aiders should ensure they are protected!

Never pour anything into the mouth of an unconscious person!

#### Inhalation

Not required.

#### Skin contact

Wash in water.

#### Eye contact

Remove contact lenses.

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

#### Ingestion

Rinse the mouth thoroughly with water.

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.

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

n.c.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

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



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For personal protective equipment see Section 8.

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.

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

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

#### **6.1.1 For non-emergency personnel**

In case of spillage or accidental release, wear personal protective equipment as specified in section 8 to prevent contamination.

Ensure sufficient ventilation, remove sources of ignition.

Avoid dust formation with solid or powder products.

Leave the danger zone if possible, use existing emergency plans if necessary.

No special measures required.

Avoid contact with eyes or skin.

If applicable, caution - risk of slipping.

#### **6.1.2 For emergency responders**

See section 8 for suitable protective equipment and material specifications.

### **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.

Do not pour down the drain undiluted.

### **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.

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.

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## **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**

Avoid contact with eyes.

Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.

Observe directions on label and instructions for use.

#### **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**

Not to be stored in gangways or stair wells.

Store product closed and only in original packing.



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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

Sulfuric acid, mono-C12-18-alkyl esters, sodium salts						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,098	mg/l	
	Environment - marine		PNEC	0,0098	mg/l	
	Environment - sporadic (intermittent) release		PNEC	0,15	mg/l	
	Environment - sewage treatment plant		PNEC	6,8	mg/l	
	Environment - sediment, freshwater		PNEC	3,45	mg/kg	
	Environment - sediment, marine		PNEC	0,345	mg/kg	
	Environment - soil		PNEC	0,631	mg/kg	
Consumer	Human - dermal	Long term, systemic effects	DNEL	2440	mg/kg bw/d	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	85	mg/m <sup>3</sup>	
Consumer	Human - oral	Long term, systemic effects	DNEL	24	mg/kg bw/d	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	4060	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	285	mg/m <sup>3</sup>	

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C12-18(even numbered) acyl) derivs., hydroxides, inner salts						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,0135	mg/l	



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	Environment - marine		PNEC	0,001 35	mg/l	
	Environment - sewage treatment plant		PNEC	3000	mg/l	
	Environment - sediment, freshwater		PNEC	1	mg/kg dw	
	Environment - sediment, marine		PNEC	0,1	mg/kg dw	
	Environment - soil		PNEC	0,8	mg/kg dw	
Consumer	Human - dermal	Long term, systemic effects	DNEL	7,5	mg/kg bw/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	7,5	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	44	mg/m <sup>3</sup>	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	12,5	mg/kg bw/day	

<b>Orange, sweet, ext.</b>						
<b>Area of application</b>	<b>Exposure route / Environmental compartment</b>	<b>Effect on health</b>	<b>Descriptor</b>	<b>Value</b>	<b>Unit</b>	<b>Note</b>
	Human - inhalation	Short term, local effects	DNEL	7,78	mg/m <sup>3</sup>	
	Human - dermal	Short term	DNEL	0,929	mg/cm <sup>2</sup>	
	Environment - freshwater		PNEC	5,4	mg/l	
	Environment - marine		PNEC	0,54	mg/l	
	Environment - periodic release		PNEC	5,77	mg/l	
	Environment - sediment, freshwater		PNEC	1,3	mg/kg dry weight	
	Environment - sediment, marine		PNEC	0,13	mg/kg dry weight	
	Environment - soil		PNEC	0,261	mg/kg dry weight	
	Environment - sewage treatment plant		PNEC	2,1	mg/l	
	Environment - oral (animal feed)		PNEC	13,3	mg/kg feed	
Consumer	Human - oral	Long term	DNEL	4,44	mg/kg body weight/d ay	



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Consumer	Human - dermal	Long term	DNEL	4,44	mg/kg bw/day	
Workers / employees	Human - dermal	Long term	DNEL	8,89	mg/kg bw/day	
Workers / employees	Human - dermal	Short term	DNEL	0,185 8	mg/cm <sup>2</sup>	
Workers / employees	Human - inhalation	Long term	DNEL	31,1	mg/m <sup>3</sup>	

## 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.

### 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:

Normally not necessary.

Skin protection - Hand protection:

Normally not necessary.

Skin protection - Other:

Normally not necessary.

Respiratory protection:

Normally not necessary.

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.

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



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No information available at present.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state:	Paste
Colour:	Beige
Odour:	Orange
Melting point/freezing point:	There is no information available on this parameter.
Boiling point or initial boiling point and boiling range:	~100 °C
Flammability:	Flammable
Lower explosion limit:	n.a.
Upper explosion limit:	n.a.
Flash point:	>100 °C
Auto-ignition temperature:	No
Decomposition temperature:	There is no information available on this parameter.
pH:	6,0-6,9 (20°C)
Kinematic viscosity:	15-30 Pas (Dynamic viscosity )
Solubility:	Soluble
Partition coefficient n-octanol/water (log value):	Does not apply to mixtures.
Vapour pressure:	~23,3 mPa (20°C)
Density and/or relative density:	0,82-0,95 g/cm <sup>3</sup> (20°C)
Relative vapour density:	There is no information available on this parameter.
Particle characteristics:	Does not apply to liquids.

### 9.2 Other information

Explosives:	Product is not explosive. Possible build up of explosive/highly flammable vapour/air mixture.
Oxidising liquids:	No
Bulk density:	n.a.
Solubility(ies):	Alcohols, partially

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Not to be expected

### 10.2 Chemical stability

Stable with proper storage and handling.

### 10.3 Possibility of hazardous reactions

No dangerous reactions are known.

### 10.4 Conditions to avoid

Strong heat

### 10.5 Incompatible materials

Avoid contact with strong oxidizing agents.

Avoid contact with strong acids.

### 10.6 Hazardous decomposition products

See also section 5.2

No decomposition when used as directed.

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## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

<b>hand cleaner duo 3 l</b>						
<b>Art.: 9080067</b>						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:						n.d.a.
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
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.

<b>Sulfuric acid, mono-C12-18-alkyl esters, sodium salts</b>						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		Expert judgement
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Skin Irrit. 2
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Dam. 1
Serious eye damage/irritation:		<10	%			Eye Irrit. 2
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitizing



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Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative

#### Isotridecanol, ethoxylated

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		
Serious eye damage/irritation:						Risk of serious damage to eyes.
Respiratory or skin sensitisation:						Not sensitising
Symptoms:						drying of the skin.

#### 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C12-18(even numbered) acyl) derivs., hydroxides, inner salts

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2000	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)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Corrosive
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitising
Germ cell mutagenicity:					OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Reproductive toxicity:	NOEL	300-1000	mg/kg	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Female

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Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOEL	300	mg/kg		OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	
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<b>Orange, sweet, ext.</b>						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	4400	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		
Skin corrosion/irritation:						Irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:					OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Sensitising (skin contact)
Germ cell mutagenicity:						Negative
Reproductive toxicity (Developmental toxicity):	NOAEL	591	mg/kg bw/d	Rat		
Specific target organ toxicity - repeated exposure (STOT-RE):	LOAEL	1000	mg/kg bw/d	Mouse		
Aspiration hazard:						Yes
Symptoms:						mucous membrane irritation

## 11.2. Information on other hazards

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Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Endocrine disrupting properties:						Does not apply to mixtures.
Other information:						No other relevant information available on adverse effects on health.



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## SECTION 12: Ecological information

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

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<b>Toxicity / effect</b>	<b>Endpoint</b>	<b>Time</b>	<b>Value</b>	<b>Unit</b>	<b>Organism</b>	<b>Test method</b>	<b>Notes</b>
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:							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.



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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. Endocrine disrupting properties:							Does not apply to mixtures.
12.7. Other adverse effects:							No information available on other adverse effects on the environment.
Other information:							According to the recipe, contains no AOX.

Sulfuric acid, mono-C12-18-alkyl esters, sodium salts							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	17	mg/l		84/449/EEC C.1	
12.1. Toxicity to fish:	NOEC/NOEL	34d	0,35	mg/l	Pimephales promelas	OECD 210 (Fish, Early-Life Stage Toxicity Test)	Analogous conclusion
12.1. Toxicity to daphnia:	NOEC/NOEL		<0,419	mg/l	Ceriodaphnia spec.		
12.1. Toxicity to daphnia:	EC50	48h	15	mg/l	Daphnia magna	84/449/EEC C.2	
12.1. Toxicity to algae:	ErC50	72h	20	mg/l		84/449/EEC C.3	
12.1. Toxicity to algae:	NOEC/NOEL		3	mg/l	Desmodesmus subspicatus	84/449/EEC C.3	



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12.2. Persistence and degradability:		28d	93	%		Regulation (EC) 440/2008 C.4-C (DETERMINATION OF 'READY' BIODEGRADABILITY - CO2 EVOLUTION TEST)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		-2,1			OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method)	
Toxicity to bacteria:	EC0		>10 - 100	mg/l	<i>Pseudomonas putida</i>		
Toxicity to bacteria:	EC50	3h	680	mg/l	activated sludge	Regulation (EC) 440/2008 C.11 (BIODEGRADATION - ACTIVATED SLUDGE RESPIRATION INHIBITION)	

#### Isotridecanol, ethoxylated

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	1-10	mg/l	<i>Cyprinus caprio</i>	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	1-10	mg/l	<i>Daphnia magna</i>	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	1-10	mg/l	<i>Scenedesmus subspicatus</i>	OECD 201 (Alga, Growth Inhibition Test)	



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12.2. Persistence and degradability:		28d	>70	%		OECD 301 A (Ready Biodegradability - DOC Die-Away Test)	
12.2. Persistence and degradability:		28d	>60	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	

**1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C12-18(even numbered) acyl) derivs., hydroxides, inner salts**

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	1,11	mg/l		OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	NOEC/NOEL	96h	0,54	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	0,9-1	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	0,36	mg/l		ISO 10253	
12.2. Persistence and degradability:		28d	91,6	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Readily biodegradable (Analogous conclusion)
12.3. Bioaccumulative potential:	Log Pow		4,2				
12.3. Bioaccumulative potential:	BCF		3-71				calculated value
Toxicity to annelids:	LC0	14d	1000	mg/kg dw	Eisenia foetida	OECD 220 (Enchytraeid Reproduction Test)	

**Orange, sweet, ext.**

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	0,7	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	



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12.1. Toxicity to daphnia:	EC50	48h	0,67	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	LIMONENE
12.1. Toxicity to algae:	ErC50	72h	150	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOEC/NOEL	96h	4	mg/l			
12.2. Persistence and degradability:		28d	72-83,4	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Readily biodegradable
12.2. Persistence and degradability:		28d	>90	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	Readily biodegradable
12.3. Bioaccumulative potential:	BCF		32-156				
12.3. Bioaccumulative potential:	Log Pow		> 4				A notable biological accumulation potential has to be expected (LogPow > 3).
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Other information:							Does not contain any organically bound halogens which can contribute to the AOX value in waste water.
Water solubility:			3,48-1767,3	mg/l			25°C





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## 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. dispose at suitable refuse site.

E.g. suitable incineration plant.

#### 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.

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## SECTION 14: Transport information

### General statements

14.1. UN number or ID number: n.a.

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

14.2. UN proper shipping name:

14.3. Transport hazard class(es): n.a.

14.4. Packing group: n.a.

Classification code: n.a.

LQ: n.a.

14.5. Environmental hazards: Not applicable

Tunnel restriction code:

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

14.2. UN proper shipping name:

14.3. Transport hazard class(es): n.a.

14.4. Packing group: n.a.

Marine Pollutant: n.a.

14.5. Environmental hazards: Not applicable

#### Transport by air (IATA)

14.2. UN proper shipping name:

14.3. Transport hazard class(es): n.a.

14.4. Packing group: n.a.

14.5. Environmental hazards: Not applicable

#### 14.6. Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

#### 14.7. Maritime transport in bulk according to IMO instruments

Non-dangerous material according to Transport Regulations.

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## **SECTION 15: Regulatory information**

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

Observe restrictions:  
General hygiene measures for the handling of chemicals are applicable.

### **15.2 Chemical safety assessment**

A chemical safety assessment is not provided for mixtures.

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## **SECTION 16: Other information**

Revised sections: 1-16

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

Not applicable

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).

H226 Flammable liquid and vapour.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H412 Harmful to aquatic life with long lasting effects.

Skin Irrit. — Skin irritation  
Eye Dam. — Serious eye damage  
Aquatic Chronic — Hazardous to the aquatic environment - chronic  
Flam. Liq. — Flammable liquid  
Skin Sens. — Skin sensitization  
Asp. Tox. — Aspiration hazard  
Aquatic Acute — Hazardous to the aquatic environment - acute

### **Key literature references and sources for data:**

Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended.  
Guidelines for the preparation of safety data sheets as amended (ECHA).  
Guidelines on labelling and packaging according to the Regulation (EG) Nr. 1272/2008 (CLP) as amended (ECHA).  
Safety data sheets for the constituent substances.  
ECHA Homepage - Information about chemicals.  
GESTIS Substance Database (Germany).  
German Environment Agency "Rigoletto" information site on substances that are hazardous to water (Germany).  
EU Occupation Exposure Limits Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, (EU) 2019/1831, each as amended.  
National Lists of Occupational Exposure Limits for each country as amended.



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Regulations on the transport of hazardous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

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

acc., acc. to according, according to  
ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)  
AOX Adsorbable organic halogen compounds  
approx. approximately  
Art., Art. no. Article number  
ASTM ASTM International (American Society for Testing and Materials)  
ATE Acute Toxicity Estimate  
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  
BSEF The International Bromine Council  
bw body weight  
CAS Chemical Abstracts Service  
CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)  
CMR carcinogenic, mutagenic, reproductive toxic  
DMEL Derived Minimum Effect Level  
DNEL Derived No Effect Level  
DOC Dissolved organic carbon  
dw dry weight  
e.g. for example (abbreviation of Latin 'exempli gratia'), for instance  
EbCx, EyCx, EbLx (x = 10, 50) Effect Concentration/Level of x % on reduction of the biomass (algae, plants)  
EC European Community  
ECHA European Chemicals Agency  
ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect  
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)  
ErCx, EµCx, ErLx (x = 10, 50) Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants)  
etc. et cetera  
EU European Union  
EVAL Ethylene-vinyl alcohol copolymer  
Fax. Fax number  
gen. general  
GHS Globally Harmonized System of Classification and Labelling of Chemicals  
GWP Global warming potential  
Koc Adsorption coefficient of organic carbon in the soil  
Kow octanol-water partition coefficient



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IARC International Agency for Research on Cancer  
IATA International Air Transport Association  
IBC (Code) International Bulk Chemical (Code)  
IMDG-code International Maritime Code for Dangerous Goods  
incl. including, inclusive  
IUCLID International Uniform Chemical Information Database  
IUPAC International Union for Pure Applied Chemistry  
LC50 Lethal Concentration to 50 % of a test population  
LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)  
Log Koc Logarithm of adsorption coefficient of organic carbon in the soil  
Log Kow, Log Pow Logarithm of octanol-water partition coefficient  
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 for Occupational Safety and Health (USA)  
NLP No-longer-Polymer  
NOEC, NOEL No Observed Effect Concentration/Level  
OECD Organisation for Economic Co-operation and Development  
org. organic  
OSHA Occupational Safety and Health Administration (USA)  
PBT persistent, bioaccumulative and toxic  
PE Polyethylene  
PNEC Predicted No Effect Concentration  
ppm parts per million  
PVC Polyvinylchloride  
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)  
SVHC Substances of Very High Concern  
Tel. Telephone  
TOC Total organic carbon  
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods  
VOC Volatile organic compounds  
vPvB very persistent and very bioaccumulative  
wwt wet weight

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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.