



## Safety Data Sheet according to (EC) No 1907/2006 as amended

Page 1 of 16

BONDERITE C-IC 827 JC25 RWE

SDS No. : 279278  
V004.0

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

#### 1.1. Product identifier

BONDERITE C-IC 827 JC25 RWE

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

Intended use:

Etching Agents for Metals

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

Henkel AG & Co. KGaA  
Henkelstr. 67  
40589 Düsseldorf

Germany

Phone: +49 211 797 0

[ua-productsafety.de@henkel.com](mailto:ua-productsafety.de@henkel.com)

For Safety Data Sheet updates please visit our website <https://mysds.henkel.com/index.html#/appSelection> or [www.henkel-adhesives.com](http://www.henkel-adhesives.com).

#### 1.4. Emergency telephone number

The Henkel information service also provides an around-the-clock telephone service on phone no.+49-(0)211-797-3350 for exceptional cases.

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (CLP):

Skin irritation Category 2

H315 Causes skin irritation.

Serious eye damage Category 1

H318 Causes serious eye damage.

Specific target organ toxicity - single exposure Category 3

H335 May cause respiratory irritation.

Target organ: respiratory tract irritation

Chronic hazards to the aquatic environment Category 2

H411 Toxic to aquatic life with long lasting effects.

#### 2.2. Label elements

##### Label elements (CLP):

<b>Hazard pictogram:</b>	
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Contains Citric acid

**Signal word:** Danger

**Hazard statement:**  
 H315 Causes skin irritation.  
 H318 Causes serious eye damage.  
 H335 May cause respiratory irritation.  
 H411 Toxic to aquatic life with long lasting effects.

**Precautionary statement: Prevention**  
 P261 Avoid breathing mist/spray.  
 P280 Wear eye protection/face protection.

**Precautionary statement: Response**  
 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 or doctor.

**2.3. Other hazards**

None if used properly.  
 Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

**Following substances are present in a concentration >= 0,1% and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):**

This mixture does not contain any substances in concentration ≥ the concentration limit that are assessed to be a PBT, vPvB or ED.

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

**3.2. Mixtures**

**Declaration of the ingredients according to CLP (EC) No 1272/2008:**

Hazardous components CAS-No. EC Number REACH-Reg No.	Concentration	Classification	Specific Conc. Limits, M-factors and ATEs	Add. Information
Citric acid 77-92-9 201-069-1 01-2119457026-42	20- 40 %	Eye Irrit. 2, H319 STOT SE 3, H335		
2-(2-butoxyethoxy)ethanol 112-34-5 203-961-6 01-2119475104-44	1- < 5 %	Eye Irrit. 2, H319		EU OEL
Amines, coco alkyl, ethoxylated 61791-14-8	0,25- < 2,5 %	Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Acute Tox. 4, Oral, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318	M acute = 1 M chronic = 1	
amines, coco alkyl 61788-46-3 262-977-1	0,01- < 0,1 %	Aquatic Chronic 1, H410 Skin Corr. 1B, H314 Acute Tox. 4, Oral, H302 STOT SE 3, H335 Aquatic Acute 1, H400 Asp. Tox. 1, H304 STOT RE 2, H373	M acute = 10 M chronic = 10	

**For full text of the H - statements and other abbreviations see section 16 "Other information".**

**Substances without classification may have community workplace exposure limits available.**

**Declaration of ingredients according to Detergent Regulation 648/2004/EC**

< 5 %

non-ionic surfactants

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**Inhalation:**

Move to fresh air.

In case of adverse health effects seek medical advice.

**Skin contact:**

IF ON SKIN: Wash with plenty of soap and water.

**Eye contact:**

Immediately flush eyes with soft jet of water or eye rinse solution for at least 5 minutes. If pains remain (intensive smarting, sensitivity to light, visual disturbance) continue flushing and contact/seek doctor or hospital.

**Ingestion:**

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

**EYE:** Irritation, conjunctivitis.

**SKIN:** Redness, inflammation.

**RESPIRATORY:** Irritation, coughing, shortness of breath, chest tightness.

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

See section: Description of first aid measures

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media:

All common extinguishing agents are suitable.

#### Extinguishing media which must not be used for safety reasons:

None known

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

Formation of toxic gases is possible during heating or in fires.

### 5.3. Advice for firefighters

Put on breathing apparatus.

#### Additional information:

In case of fire, keep containers cool with water spray.

## SECTION 6: Accidental release measures

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

Avoid contact with skin and eyes.

### 6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

### 6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Dispose of contaminated material as waste according to Section 13.

### 6.4. Reference to other sections

See advice in section 8

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Avoid skin and eye contact.

Use only in well-ventilated areas.

#### Hygiene measures:

Take off contaminated clothing and wash before reuse.

The workplace should be equipped with an emergency shower and eye-rinsing facility.

### 7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container.

Must be stored in a room with spill collection facilities.

Keep container tightly sealed.

Keep container in a well ventilated place.

Do not use packing made of metal.

Store in a cool, frost-free place.

Do not store together with strong bases or very alkaline substances.

### 7.3. Specific end use(s)

Etching Agents for Metals

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational Exposure Limits

Valid for  
Germany

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
Citric acid 77-92-9			Short Term Exposure Classification:	Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages.	TRGS 900
Citric acid 77-92-9		2	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
2-(2-Butoxyethoxy)ethanol 112-34-5 [2-(2-BUTOXYETHOXY)ETHANOL]	10	67,5	Time Weighted Average (TWA):	Indicative	ECLTV
2-(2-Butoxyethoxy)ethanol 112-34-5 [2-(2-BUTOXYETHOXY)ETHANOL]	15	101,2	Short Term Exposure Limit (STEL):	Indicative	ECLTV
2-(2-Butoxyethoxy)ethanol 112-34-5	10	67	Exposure limit(s):	1.5 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
2-(2-Butoxyethoxy)ethanol 112-34-5			Short Term Exposure Classification:	Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages.	TRGS 900

**Predicted No-Effect Concentration (PNEC):**

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
2-(2-butoxyethoxy)ethanol 112-34-5	aqua (freshwater)		1,1 mg/l				
2-(2-butoxyethoxy)ethanol 112-34-5	aqua (marine water)		0,11 mg/l				
2-(2-butoxyethoxy)ethanol 112-34-5	Freshwater - intermittent		11 mg/l				
2-(2-butoxyethoxy)ethanol 112-34-5	sediment (freshwater)				4,4 mg/kg		
2-(2-butoxyethoxy)ethanol 112-34-5	sediment (marine water)				0,44 mg/kg		
2-(2-butoxyethoxy)ethanol 112-34-5	oral				56 mg/kg		
2-(2-butoxyethoxy)ethanol 112-34-5	Soil				0,32 mg/kg		
Amines, coco alkyl 61788-46-3	aqua (freshwater)		0,00026 mg/l				
Amines, coco alkyl 61788-46-3	aqua (marine water)		0,000026 mg/l				
Amines, coco alkyl 61788-46-3	aqua (intermittent releases)		0,0016 mg/l				
Amines, coco alkyl 61788-46-3	sewage treatment plant (STP)		0,550 mg/l				
Amines, coco alkyl 61788-46-3	Soil				10 mg/kg		
Amines, coco alkyl 61788-46-3	oral				0,22 mg/kg		
Amines, coco alkyl 61788-46-3	sediment (freshwater)		0,1794 mg/l				
Amines, coco alkyl 61788-46-3	sediment (marine water)		0,01794 mg/l				

**Derived No-Effect Level (DNEL):**

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
2-(2-butoxyethoxy)ethanol 112-34-5	Workers	inhalation	Acute/short term exposure - local effects		101,2 mg/m3	
2-(2-butoxyethoxy)ethanol 112-34-5	Workers	inhalation	Long term exposure - local effects		67,5 mg/m3	
2-(2-butoxyethoxy)ethanol 112-34-5	General population	oral	Long term exposure - systemic effects		6,25 mg/kg	
Amines, coco alkyl 61788-46-3	Workers	inhalation	Long term exposure - systemic effects		0,38 mg/m3	
Amines, coco alkyl 61788-46-3	Workers	dermal	Long term exposure - systemic effects		0,09 mg/kg	
Amines, coco alkyl 61788-46-3	Workers	dermal	Long term exposure - local effects		600 ppm	
Amines, coco alkyl 61788-46-3	General population	oral	Long term exposure - systemic effects		0,04 mg/kg	

**Biological Exposure Indices:**

None

**8.2. Exposure controls:**

Engineering controls:

Ensure good ventilation/suction at the workplace.

Respiratory protection:

In case of aerosol formation, we recommend wearing of appropriate respiratory protection equipment with ABEK P2 filter (EN 14387).

This recommendation should be matched to local conditions.

Hand protection:

Chemical-resistant protective gloves (EN 374). Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374): Polychloroprene (CR; >= 1 mm thickness) or natural rubber (NR; >=1 mm thickness) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Polychloroprene (CR; >= 1 mm thickness) or natural rubber (NR; >=1 mm thickness) This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Goggles which can be tightly sealed.

Protective eye equipment should conform to EN166.

Skin protection:

Suitable protective clothing

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state	liquid
Delivery form	liquid
Colour	yellow
Odor	no valuation
Melting point	Not applicable, Product is a liquid
Initial boiling point	100 °C (212 °F)
Flammability	Not applicable
Explosive limits	Currently under determination
Flash point	Not available.
Auto-ignition temperature	Currently under determination
Decomposition temperature	Currently under determination
pH (20 °C (68 °F); Conc.: 1,0 % product; Solvent: Demineralised water)	2,3 - 2,9 PH-value, potentiometer
pH (20 °C (68 °F); Conc.: 100 %)	1,4 PH-value, potentiometer
Viscosity (kinematic)	Currently under determination
Solubility (qualitative) (20 °C (68 °F); Solvent: Water)	Miscible
Partition coefficient: n-octanol/water	Not applicable Mixture

Vapour pressure (50 °C (122 °F))	Values referring to water
Vapour pressure (55 °C (131 °F))	Values referring to water
Density (20 °C (68 °F))	1,115 - 1,135 g/cm <sup>3</sup> Density, oscillation
Relative vapour density:	Currently under determination
Particle characteristics	Not applicable Product is a liquid

**9.2. Other information**

Other information not applicable for this product

## SECTION 10: Stability and reactivity

**10.1. Reactivity**

Reaction with strong bases  
Reaction with metals: production of hydrogen.

**10.2. Chemical stability**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

See section reactivity

**10.4. Conditions to avoid**

No decomposition if used according to specifications.

**10.5. Incompatible materials**

See section reactivity.

**10.6. Hazardous decomposition products**

None if used for intended purpose.  
In case of fire toxic gases can be released.

## SECTION 11: Toxicological information

**General toxicological information:**

The classification is based on an expert judgement with regard to existing specifications of the substances, the base/acid reserve and from In Vitro experiments.(if applicable: for similar formulations)

**1.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute oral toxicity:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Citric acid 77-92-9	LD50	5.400 mg/kg	mouse	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
2-(2-butoxyethoxy)ethanol 112-34-5	LD50	> 2.000 mg/kg	rat	EU Method B.1 (Acute Toxicity (Oral))
amines, coco alkyl 61788-46-3	LD50	1.300 mg/kg	rat	not specified



**Acute dermal toxicity:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Citric acid 77-92-9	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
2-(2- butoxyethoxy)ethanol 112-34-5	LD50	2.764 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
amines, coco alkyl 61788-46-3	LD50	> 2.000 mg/kg	rat	not specified

**Acute inhalative toxicity:**

No data available.

**Skin corrosion/irritation:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Citric acid 77-92-9	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
2-(2- butoxyethoxy)ethanol 112-34-5	not irritating		rabbit	Draize Test
amines, coco alkyl 61788-46-3	corrosive		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

**Serious eye damage/irritation:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Citric acid 77-92-9	irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
2-(2- butoxyethoxy)ethanol 112-34-5	moderately irritating		rabbit	not specified

**Respiratory or skin sensitization:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
2-(2- butoxyethoxy)ethanol 112-34-5	not sensitising	Guinea pig maximisation test	guinea pig	Magnusson and Kligman Method

**Germ cell mutagenicity:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Citric acid 77-92-9	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Citric acid 77-92-9	positive	in vitro mammalian cell micronucleus test	without		equivalent or similar to OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)
2-(2-butoxyethoxy)ethanol 112-34-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
amines, coco alkyl 61788-46-3	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Citric acid 77-92-9	negative	oral: gavage		rat	equivalent or similar to OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
Citric acid 77-92-9	negative	oral: gavage		rat	EU Method B.22 (Rodent Dominant Lethal Test)

**Carcinogenicity**

No data available.

**Reproductive toxicity:**

No data available.

**STOT-single exposure:**

No data available.

**STOT-repeated exposure::**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Citric acid 77-92-9	NOAEL 4.000 mg/kg	oral: gavage	10 d daily	rat	not specified
2-(2-butoxyethoxy)ethanol 112-34-5	NOAEL < 50 mg/kg	oral: gavage	90 days 5 days/week	rat	not specified
2-(2-butoxyethoxy)ethanol 112-34-5	NOAEL 2 - 6 ppm	inhalation	90 days	rat	not specified
2-(2-butoxyethoxy)ethanol 112-34-5	NOAEL > 2.000 mg/kg	dermal	13 weeks 6 hours/day, 5 days/week	rat	not specified

**Aspiration hazard:**

No data available.

**11.2 Information on other hazards**

not applicable

## SECTION 12: Ecological information

### General ecological information:

Do not empty into drains / surface water / ground water.

The biodegradability of the surfactants contained in the product is in accordance with the requirements of the EU Detergent Regulation (EC/648/2004).

The surfactants contained in the products are primary biodegradable to at least 90% on average.

### 12.1. Toxicity

#### Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Citric acid 77-92-9	LC50	> 250 mg/l	48 h	Leuciscus idus	DIN 38412-15
2-(2-butoxyethoxy)ethanol 112-34-5	LC50	1.300 mg/l	96 h	Lepomis macrochirus	OECD Guideline 203 (Fish, Acute Toxicity Test)
Amines, coco alkyl, ethoxylated 61791-14-8	LC50	0,48 mg/l	96 h		OECD Guideline 203 (Fish, Acute Toxicity Test)
amines, coco alkyl 61788-46-3	LC50	0,84 mg/l	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)

#### Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Citric acid 77-92-9	EC50	275 mg/l	24 h	Daphnia magna	EU Method C.2 (Acute Toxicity for Daphnia)
2-(2-butoxyethoxy)ethanol 112-34-5	EC50	3.300 mg/l	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Amines, coco alkyl, ethoxylated 61791-14-8	EC50	0,37 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
amines, coco alkyl 61788-46-3	EC50	0,32 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

#### Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
amines, coco alkyl 61788-46-3	NOEC	0,013 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

#### Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Citric acid 77-92-9	EC50	> 640 mg/l	7 d	Scenedesmus quadricauda	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-(2-butoxyethoxy)ethanol 112-34-5	NOEC	> 100 mg/l	96 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-(2-butoxyethoxy)ethanol 112-34-5	EC50	> 100 mg/l	96 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
amines, coco alkyl 61788-46-3	NOEC	0,06 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
amines, coco alkyl 61788-46-3	EC50	0,16 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)

### Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Citric acid 77-92-9	EC0	1.000 mg/l	30 min	not specified	not specified
2-(2-butoxyethoxy)ethanol 112-34-5	EC10	> 1.995 mg/l	30 min	activated sludge, industrial	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
amines, coco alkyl 61788-46-3	EC10	5,5 mg/l	3 h	activated sludge	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

### 12.2. Persistence and degradability

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Citric acid 77-92-9	readily biodegradable	aerobic	79 %	30 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
2-(2-butoxyethoxy)ethanol 112-34-5	inherently biodegradable	aerobic	100 %	9 d	OECD Guideline 302 B (Inherent biodegradability: Zahn- Wellens/EMPA Test)
2-(2-butoxyethoxy)ethanol 112-34-5	readily biodegradable	aerobic	> 60 %	28 d	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
Amines, coco alkyl, ethoxylated 61791-14-8		aerobic	0 - 60 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
amines, coco alkyl 61788-46-3	readily biodegradable	aerobic	62 %	29 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
amines, coco alkyl 61788-46-3	inherently biodegradable	aerobic	50 - 65 %	26 d	OECD Guideline 302 B (Inherent biodegradability: Zahn- Wellens/EMPA Test)

### 12.3. Bioaccumulative potential

No data available.

### 12.4. Mobility in soil

Hazardous substances CAS-No.	LogPow	Temperature	Method
Citric acid 77-92-9	> -1,8 - -1,6		other guideline:
2-(2-butoxyethoxy)ethanol 112-34-5	1	20 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)

#### 12.5. Results of PBT and vPvB assessment

Hazardous substances CAS-No.	PBT / vPvB
Citric acid 77-92-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
2-(2-butoxyethoxy)ethanol 112-34-5	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

#### 12.6. Endocrine disrupting properties

not applicable

#### 12.7. Other adverse effects

If acidic or alkaline products are discharged into wastewater installations care must be taken that the discharged wastewater has a pH in the range pH 6 - 10, as pH variations could cause disorders in wastewater channels and biological sewage treatment plants. The local discharge regulations take precedence.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product disposal:

Dispose of as hazardous waste in compliance with local and national regulations.

Waste code

060106

Waste code

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

<b>SECTION 14: Transport information</b>
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**14.1. UN number or ID number**

ADR	3082
RID	3082
ADN	3082
IMDG	3082
IATA	3082

**14.2. UN proper shipping name**

ADR	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Coconut fatty amine poly(5)ethoxylate,Amines, coco alkyl)
RID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Coconut fatty amine poly(5)ethoxylate,Amines, coco alkyl)
ADN	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Coconut fatty amine poly(5)ethoxylate,Amines, coco alkyl)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Coconut fatty amine poly(5)ethoxylate,Amines, coco alkyl)
IATA	Environmentally hazardous substance, liquid, n.o.s. (Coconut fatty amine poly(5)ethoxylate,Amines, coco alkyl)

**14.3. Transport hazard class(es)**

ADR	9
RID	9
ADN	9
IMDG	9
IATA	9

**14.4. Packing group**

ADR	III
RID	III
ADN	III
IMDG	III
IATA	III

**14.5. Environmental hazards**

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	Marine pollutant
IATA	not applicable

**14.6. Special precautions for user**

ADR	not applicable Tunnelcode:
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

The transport classifications in this section apply generally to packed and bulk goods alike. For containers with a net volume of no more than 5 L for liquid substances or a net mass of no more than 5 kg for solid substances per individual or inner package, the exemptions SP 375 (ADR), A197 (IATA), 2.10.2.7 (IMDG) may be applied, which can result in a deviation from the transport classification for packed goods.

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

not applicable

**SECTION 15: Regulatory information**

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009):	Not applicable
Prior Informed Consent (PIC) (Regulation (EU) No 649/2012):	Not applicable
Persistent organic pollutants (Regulation (EU) 2019/1021):	Not applicable
VOC content (2010/75/EU)	0 %

**15.2. Chemical safety assessment**

A chemical safety assessment has not been carried out.

**National regulations/information (Germany):**

WGK:	WGK 2: significantly water endangering (Ordinance on facilities for handling substances that are hazardous to water (AwSV) ) Classification according to AwSV, Annex 1 (5.2)
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Storage class according to TRGS 510: 10

## SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

H302 Harmful if swallowed.  
 H304 May be fatal if swallowed and enters airways.  
 H314 Causes severe skin burns and eye damage.  
 H315 Causes skin irritation.  
 H318 Causes serious eye damage.  
 H319 Causes serious eye irritation.  
 H335 May cause respiratory irritation.  
 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.

ED:	Substance identified as having endocrine disrupting properties
EU OEL:	Substance with a Union workplace exposure limit
EU EXPLD 1:	Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD 2	Substance listed in Annex II, Reg (EC) No. 2019/1148
SVHC:	Substance of very high concern (REACH Candidate List)
PBT:	Substance fulfilling persistent, bioaccumulative and toxic criteria
PBT/vPvB:	Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very bioaccumulative criteria
vPvB:	Substance fulfilling very persistent and very bioaccumulative criteria

### Further information:

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