

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

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CARK 211

SDS No. : 199238

V004.0

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

1.1. Product identifier

CARK 211

Contains:

2-aminoethanol

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

Intended use:

Cleaners for industrial metal working

1.3. Details of the supplier of the safety data sheet

TEKNOX SRL

Via Mori 6 - 40054 Prunaro di Budrio BO Italia

Tel : +39 051 800862 N. Fax: +39 051 803769

info@teknox.net

1.4. Emergency telephone number

24 Hours Emergency Tel: +39 051800862

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Skin corrosion

Category 1B

H314 Causes severe skin burns and 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 3

H412 Harmful to aquatic life with long lasting effects.

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Signal word:	Danger
Hazard statement:	H314 Causes severe skin burns and eye damage. H335 May cause respiratory irritation. H412 Harmful to aquatic life with long lasting effects.
Precautionary statement: Prevention	P260 Do not breathe mist/vapours. P280 Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statement: Response	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 or doctor.

2.3. Other hazards
None if used properly.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Base substances of preparation:

Alkanolamine salt
alkanolamines
Glycols
non-ionic surfactants
quaternary ammonium compounds
Phosphates
cationic surfactants

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
2-aminoethanol 141-43-5	205-483-3 01-2119486455-28	5- < 10 %	Acute Tox. 4; Oral H302 Acute Tox. 4; Dermal H312 Skin Corr. 1B H314 Acute Tox. 4; Inhalation H332 Aquatic Chronic 3 H412
2-(2-Butoxyethoxy)ethanol 112-34-5	203-961-6 01-2119475104-44	5- < 10 %	Eye Irrit. 2 H319
Amines, C12-14-alkyldimethyl, N-oxides 308062-28-4	01-2119490061-47	1- < 5 %	Acute Tox. 4 H302 Skin Irrit. 2 H315 Eye Dam. 1 H318 Aquatic Acute 1 H400 Aquatic Chronic 2 H411
Benzenesulfonic acid, C10-13-alkyl derivs., compds. with triethanolamine 68411-31-4	270-116-6	1- < 5 %	Eye Dam. 1 H318 Skin Irrit. 2 H315
Fatty alcohol, C12-18, ethoxylate 68213-23-0	500-201-8	1- < 5 %	Eye Dam. 1 H318
C12-16 Alkyldimethylbenzylammonium chloride 68424-85-1	270-325-2 01-2119965180-41	1- < 2,5 %	Met. Corr. 1 H290 Acute Tox. 4; Oral H302 Skin Corr. 1B H314 Aquatic Acute 1 H400 Aquatic Chronic 1 H410 M factor: 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 - 15 %	phosphates
< 5 %	non-ionic surfactants
	cationic surfactants
	phosphonates
Further ingredients	Perfumes

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Fresh air, consult doctor.

Skin contact:

Rinse with running water and soap. Apply replenishing cream. Change all contaminated clothing.

Immediate medical treatment necessary.

Eye contact:

Immediately flush eyes with soft jet of water or eye rinse solution for at least 15 minutes. Hold eyelid wide-open. Seek a doctor/hospital, eye flushing should continue during transportation to a doctor.

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

Causes burns.

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

Wear protective equipment.

Wear self-contained breathing apparatus.

Additional information:

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

SECTION 6: Accidental release measures**General information:**

Danger of slipping on spilled product.

6.1. Personal precautions, protective equipment and emergency procedures

Avoid skin and eye contact.

Wear protective equipment.

6.2. Environmental precautions

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

Do not allow to enter the ground / soil.

6.3. Methods and material for containment and cleaning up

Remove with liquid-absorbing material (sand, peat, sawdust).

Wash away residue with plenty of water.

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.
 Ensure that workrooms are adequately ventilated.
 See advice in section 8

Hygiene measures:

Wash hands before work breaks and after finishing work.
 Do not eat, drink or smoke while working.
 Wash contaminated clothing 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 in sealed original container.
 Store in a cool, well-ventilated place.

7.3. Specific end use(s)

Cleaners for industrial metal working

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
 Great Britain

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
2-Aminoethanol 141-43-5 [2-AMINOETHANOL]	3	7,6	Short Term Exposure Limit (STEL):		EH40 WEL
2-Aminoethanol 141-43-5 [2-AMINOETHANOL]	1	2,5	Time Weighted Average (TWA):		EH40 WEL
2-Aminoethanol 141-43-5 [2-AMINOETHANOL]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
2-Aminoethanol 141-43-5 [2-AMINOETHANOL]	3	7,6	Short Term Exposure Limit (STEL):	Indicative	ECTLV
2-Aminoethanol 141-43-5 [2-AMINOETHANOL]	1	2,5	Time Weighted Average (TWA):	Indicative	ECTLV
2-(2-Butoxyethoxy)ethanol 112-34-5 [2-(2-BUTOXYETHOXY)ETHANOL]	15	101,2	Short Term Exposure Limit (STEL):		EH40 WEL
2-(2-Butoxyethoxy)ethanol 112-34-5 [2-(2-BUTOXYETHOXY)ETHANOL]	10	67,5	Time Weighted Average (TWA):		EH40 WEL
2-(2-Butoxyethoxy)ethanol 112-34-5 [2-(2-BUTOXYETHOXY)ETHANOL]	10	67,5	Time Weighted Average (TWA):	Indicative	ECTLV
2-(2-Butoxyethoxy)ethanol 112-34-5 [2-(2-BUTOXYETHOXY)ETHANOL]	15	101,2	Short Term Exposure Limit (STEL):	Indicative	ECTLV

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
2-Aminoethanol 141-43-5	aqua (freshwater)					0,085 mg/L	
2-Aminoethanol 141-43-5	aqua (marine water)					0,0085 mg/L	
2-Aminoethanol 141-43-5	aqua (intermittent releases)					0,025 mg/L	
2-Aminoethanol 141-43-5	sediment (freshwater)				0,425 mg/kg		
2-Aminoethanol 141-43-5	sediment (marine water)				0,0425 mg/kg		
2-Aminoethanol 141-43-5	soil				0,035 mg/kg		
2-Aminoethanol 141-43-5	STP					100 mg/L	
2-(2-Butoxyethoxy)ethanol 112-34-5	aqua (freshwater)					1 mg/L	
2-(2-Butoxyethoxy)ethanol 112-34-5	aqua (marine water)					0,1 mg/L	
2-(2-Butoxyethoxy)ethanol 112-34-5	aqua (intermittent releases)					3,9 mg/L	
2-(2-Butoxyethoxy)ethanol 112-34-5	sediment (freshwater)				4 mg/kg		
2-(2-Butoxyethoxy)ethanol 112-34-5	sediment (marine water)				0,4 mg/kg		
2-(2-Butoxyethoxy)ethanol 112-34-5	STP					200 mg/L	
2-(2-Butoxyethoxy)ethanol 112-34-5	oral				56 mg/kg		
2-(2-Butoxyethoxy)ethanol 112-34-5	soil				0,4 mg/kg		
Amines, C12-14-alkyldimethyl, N-oxides 308062-28-4	aqua (freshwater)					0,0335 mg/L	
Amines, C12-14-alkyldimethyl, N-oxides 308062-28-4	aqua (marine water)					0,00335 mg/L	
Amines, C12-14-alkyldimethyl, N-oxides 308062-28-4	STP					24 mg/L	
Amines, C12-14-alkyldimethyl, N-oxides 308062-28-4	sediment (freshwater)				5,24 mg/kg		
Amines, C12-14-alkyldimethyl, N-oxides 308062-28-4	sediment (marine water)				0,524 mg/kg		
Amines, C12-14-alkyldimethyl, N-oxides 308062-28-4	oral					11,1 mg/kg food	
Amines, C12-14-alkyldimethyl, N-oxides 308062-28-4	soil				1,02 mg/kg		
Amines, C12-14-alkyldimethyl, N-oxides 308062-28-4	aqua (intermittent releases)					0,0355 mg/L	
Quaternary ammonium compounds, benzyl- C12-16-alkyldimethyl, chlorides 68424-85-1	aqua (freshwater)					0,0009 mg/L	
Quaternary ammonium compounds, benzyl- C12-16-alkyldimethyl, chlorides 68424-85-1	aqua (marine water)					0,00009 mg/L	
Quaternary ammonium compounds, benzyl- C12-16-alkyldimethyl, chlorides 68424-85-1	aqua (intermittent releases)					0,00016 mg/L	
Quaternary ammonium compounds, benzyl- C12-16-alkyldimethyl, chlorides 68424-85-1	STP					0,4 mg/L	
Quaternary ammonium compounds, benzyl- C12-16-alkyldimethyl, chlorides 68424-85-1	sediment (freshwater)				12,27 mg/kg		
Quaternary ammonium compounds, benzyl- C12-16-alkyldimethyl, chlorides 68424-85-1	aqua (marine water)				1,22 mg/kg		
Quaternary ammonium compounds, benzyl- C12-16-alkyldimethyl, chlorides 68424-85-1	Soil				7 mg/kg		

C12-16-alkyldimethyl, chlorides 68424-85-1							
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Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
2-Aminoethanol 141-43-5	Workers	Dermal	Long term exposure - systemic effects		1 mg/kg bw/day	
2-Aminoethanol 141-43-5	Workers	Inhalation	Long term exposure - local effects		3,3 mg/m3	
2-Aminoethanol 141-43-5	general population	Dermal	Long term exposure - systemic effects		0,24 mg/kg bw/day	
2-Aminoethanol 141-43-5	general population	Inhalation	Acute/short term exposure - local effects		2 mg/m3	
2-Aminoethanol 141-43-5	general population	oral	Long term exposure - systemic effects		3,75 mg/kg bw/day	
2-Aminoethanol 141-43-5	general population	Inhalation	Long term exposure - local effects		2 mg/m3	
2-Aminoethanol 141-43-5	general population	Inhalation	Long term exposure - systemic effects		2 mg/m3	
2-(2-Butoxyethoxy)ethanol 112-34-5	Workers	Inhalation	Long term exposure - systemic effects		67,5 mg/m3	
2-(2-Butoxyethoxy)ethanol 112-34-5	Workers	Dermal	Long term exposure - systemic effects		20 mg/kg bw/day	
2-(2-Butoxyethoxy)ethanol 112-34-5	general population	Inhalation	Acute/short term exposure - local effects		60,7 mg/m3	
2-(2-Butoxyethoxy)ethanol 112-34-5	general population	Inhalation	Long term exposure - systemic effects		40,5 mg/m3	
2-(2-Butoxyethoxy)ethanol 112-34-5	general population	Dermal	Long term exposure - systemic effects		50 mg/kg bw/day	
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		5 mg/kg bw/day	
2-(2-Butoxyethoxy)ethanol 112-34-5	general population	Inhalation	Long term exposure - local effects		40,5 mg/m3	
Amines, C12-14-alkyldimethyl, N-oxides 308062-28-4	Workers	Inhalation	Long term exposure - systemic effects		15,5 mg/m3	
Amines, C12-14-alkyldimethyl, N-oxides 308062-28-4	Workers	Dermal	Long term exposure - systemic effects		11 mg/kg bw/day	
Amines, C12-14-alkyldimethyl, N-oxides 308062-28-4	general population	Inhalation	Long term exposure - systemic effects		3,825 mg/m3	
Amines, C12-14-alkyldimethyl, N-oxides 308062-28-4	general population	Dermal	Long term exposure - systemic effects		5,5 mg/kg bw/day	
Amines, C12-14-alkyldimethyl, N-oxides 308062-28-4	general population	oral	Long term exposure - systemic effects		0,44 mg/kg bw/day	
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides 68424-85-1	Workers	inhalation	Long term exposure - systemic effects		3,96 mg/m3	
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides 68424-85-1	Workers	Dermal	Long term exposure - systemic effects		5,7 mg/kg bw/day	

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides 68424-85-1	general population	inhalation	Long term exposure - systemic effects		1,64 mg/m3	
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides 68424-85-1	general population	Dermal	Long term exposure - systemic effects		3,4 mg/kg bw/day	
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides 68424-85-1	general population	oral	Long term exposure - systemic effects		3,4 mg/kg bw/day	

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. 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.

Skin protection:

Protective clothing that covers arms and legs.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid clear yellow
Odor	characteristic
Odour threshold	No data available / Not applicable
pH (20 °C (68 °F); Conc.: 1,0 % product; Solvent: Demineralised water)	9,50 - 10,50
Initial boiling point	No data available / Not applicable
Flash point	No flash point up to 100°C. Aqueous preparation.
Decomposition temperature	No data available / Not applicable
Vapour pressure	No data available / Not applicable
Density (20 °C (68 °F))	1,075 - 1,095 g/cm3
Bulk density	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative) (Solvent: Water)	fully miscible
Solidification temperature	No data available / Not applicable
Melting point	No data available / Not applicable

Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	No data available / Not applicable
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	No data available / Not applicable
Oxidising properties	No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with acids: Heat released.

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

11.1. Information on toxicological effects

General toxicological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

STOT-single exposure:

May cause respiratory irritation.

Oral toxicity:

Acute oral toxicity: LD50 > 2000 mg/kg body weight (calculated).

Skin irritation:

Causes severe skin burns and eye damage.

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
2-aminoethanol 141-43-5	LD50	1.515 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
2-(2-Butoxyethoxy)ethanol 112-34-5	LD50	> 2.000 mg/kg	oral		rat	EU Method B.1 (Acute Toxicity (Oral))
Amines, C12-14-alkyldimethyl, N-oxides 308062-28-4	LD50	1.064 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Benzenesulfonic acid, C10-13-alkyl derivs., compds. with triethanolamine 68411-31-4	LD50	5.270 mg/kg	oral		rat	
Fatty alcohol, C12-18, ethoxylate 68213-23-0	LD50	> 5.000 mg/kg	oral		rat	EU Method B.1 (Acute Toxicity (Oral))

Acute inhalative toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
2-aminoethanol 141-43-5	Acute toxicity estimate (ATE)	1,5 mg/l	Aerosol			Expert judgement
2-aminoethanol 141-43-5	LC50	1 - 5 mg/l		4 h	rat	

Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
2-aminoethanol 141-43-5	LD50	1.025 mg/kg	dermal		rabbit	
2-(2-Butoxyethoxy)ethanol 112-34-5	LD50	2.800 mg/kg	dermal		rabbit	
C12-16 Alkyldimethylbenzylamm onium chloride 68424-85-1	LD50	3.412,5 mg/kg	dermal		rabbit	EPA OPPTS 870.1200 (Acute Dermal Toxicity)

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
2-aminoethanol 141-43-5	corrosive	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
2-(2-Butoxyethoxy)ethanol 112-34-5	not irritating		rabbit	Draize Test
Amines, C12-14-alkyldimethyl, N-oxides 308062-28-4	irritating	24 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Fatty alcohol, C12-18, ethoxylate 68213-23-0	moderately irritating	2 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
2-aminoethanol 141-43-5	corrosive		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
2-(2- Butoxyethoxy)ethanol 112-34-5	moderately irritating		rabbit	
Amines, C12-14- alkyldimethyl, N-oxides 308062-28-4	highly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Fatty alcohol, C12-18, ethoxylate 68213-23-0	irritating	24 h	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components 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
Amines, C12-14- alkyldimethyl, N-oxides 308062-28-4	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
C12-16 Alkyldimethylbenzylamm onium chloride 68424-85-1	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
2-aminoethanol 141-43-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		Ames Test
2-aminoethanol 141-43-5	negative	oral: feed		mouse	Micronucleus assay
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)
C12-16 Alkyldimethylbenzylamm onium chloride 68424-85-1	negative	in vitro mammalian chromosome aberration test			OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
	negative	bacterial reverse mutation assay (e.g Ames test)			OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
2-(2- Butoxyethoxy)ethanol 112-34-5	LOAEL=51 - 65 mg/kg	oral: gavage	90 days 5 days/week	rat	
2-(2- Butoxyethoxy)ethanol 112-34-5	NOAEL=<< 50 mg/kg	oral: gavage	90 days 5 days/week	rat	
2-(2- Butoxyethoxy)ethanol 112-34-5	NOAEL=2 - 6 ppm	inhalation	90 days	rat	
2-(2- Butoxyethoxy)ethanol 112-34-5	NOAEL=> 2.000 mg/kg		13 weeks 6 hours/day, 5 days/week	rat	
Amines, C12-14- alkyldimethyl, N-oxides 308062-28-4	NOAEL=88 mg/kg	oral: feed	90 d	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

SECTION 12: Ecological information**General ecological information:**

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

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

Contains phosphate, may fertilize watercourses.

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.

12.1. Toxicity**Ecotoxicity:**

Harmful to aquatic life with long lasting effects.

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
2-aminoethanol 141-43-5	LC50	> 250 mg/l	Fish	48 h	Leuciscus idus	DIN 38412-15
	NOEC	1.221 mg/l	Fish		Brachydanio rerio (new name: Danio rerio)	OECD 210 (fish early lite stage toxicity test)
2-aminoethanol 141-43-5	EC50	85 mg/l	Daphnia	24 h	Daphnia magna	
2-aminoethanol 141-43-5	EC50	2,5 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	1 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-aminoethanol 141-43-5	NOEC	0,85 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
2-(2-Butoxyethoxy)ethanol 112-34-5	LC50	1.300 mg/l	Fish	96 h	Lepomis macrochirus	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-(2-Butoxyethoxy)ethanol 112-34-5	EC50	3.300 mg/l	Daphnia	24 h	Daphnia magna	
2-(2-Butoxyethoxy)ethanol 112-34-5	NOEC	> 100 mg/l	Algae	96 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	EC50	> 100 mg/l	Algae	96 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Amines, C12-14- alkyldimethyl, N-oxides 308062-28-4	LC50	2,67 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Amines, C12-14- alkyldimethyl, N-oxides 308062-28-4	EC50	10,4 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
	EC50	0,266 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Amines, C12-14- alkyldimethyl, N-oxides 308062-28-4	NOEC	0,067 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	LC50	7,5 mg/l	Fish	48 h	Leuciscus idus	DIN 38412-15
Benzenesulfonic acid, C10- 13-alkyl derivs., compds. with triethanolamine 68411-31-4	EC50	12,5 mg/l	Daphnia	24 h	Daphnia magna	
Benzenesulfonic acid, C10-13- alkyl derivs., compds. with triethanolamine 68411-31-4	NOEC	1,7 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	EC50	26,4 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Fatty alcohol, C12-18, ethoxylate 68213-23-0	LC50	6 mg/l	Fish	48 h	Leuciscus idus	DIN 38412-15
Fatty alcohol, C12-18, ethoxylate 68213-23-0	EC50	7 mg/l	Daphnia	24 h	Daphnia magna	
	NOEC	0,032 mg/l	Fish	34 d	Pimephales promelas	
Alkyldimethylbenzylammoniu m chloride 68424-85-1	LC50	0,28 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
	EC50	0,016 mg/l	Daphnia	48 h	Daphnia sp.	EU Method C.2 (Acute Toxicity for Daphnia)
C12-16 Alkyldimethylbenzylammoniu m chloride 68424-85-1	EC10	0,009 mg/l	Algae	72 h		OECD Guideline

Alkyldimethylbenzylammonium chloride 68424-85-1	EC50	0,03 mg/l	Algae	72 h	Daphnia magna	201 (Alga, Growth Inhibition Test)
C12-16 Alkyldimethylbenzylammonium chloride 68424-85-1	NOEC	0,025 mg/l	chronic Daphnia	21 d		OECD Guideline 201 (Alga, Growth Inhibition Test) OECD 211 (Daphnia magna, Reproduction Test)

12.2. Persistence and degradability

Persistence and degradability:

Degradation of surfactants

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.

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
2-aminoethanol 141-43-5	readily biodegradable	aerobic	> 80 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
2-(2-Butoxyethoxy)ethanol 112-34-5	readily biodegradable	aerobic	> 60 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
Amines, C12-14-alkyldimethyl, N-oxides 308062-28-4	readily biodegradable	aerobic	90 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Benzenesulfonic acid, C10-13-alkyl derivs., compds. with triethanolamine 68411-31-4	readily biodegradable	aerobic	92 %	EU Method C.4-B (Determination of the "Ready" Biodegradability/Modified OECD Screening Test)
Fatty alcohol, C12-18, ethoxylate 68213-23-0	readily biodegradable	aerobic	77 %	EU Method C.4-E (Determination of the "Ready" Biodegradability/Closed Bottle Test)
C12-16 Alkyldimethylbenzylammonium chloride 68424-85-1	readily biodegradable		95,5 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)

12.3. Bioaccumulative potential / 12.4. Mobility in soil

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
2-aminoethanol 141-43-5	-1,91				25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
2-(2-Butoxyethoxy)ethanol 112-34-5	0,56					
Amines, C12-14-alkyldimethyl, N-oxides 308062-28-4	0,93					EU Method A.8 (Partition Coefficient)
C12-16 Alkyldimethylbenzylammonium chloride 68424-85-1	2,75	79	35 d	Perca fluviatilis		OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
C12-16 Alkyldimethylbenzylammonium chloride 68424-85-1						

12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB
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2-aminoethanol 141-43-5	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.
Amines, C12-14-alkyldimethyl, N-oxides 308062-28-4	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
C12-16 Alkyldimethylbenzylammonium chloride 68424-85-1	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

In consultation with the responsible local authority, must be subjected to special treatment.

Disposal of uncleaned packages:

Disposal must be made according to official regulations.

Recommended cleaning agents

Clean the packaging with water.

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.

EWC/EAK 070608

SECTION 14: Transport information

14.1. UN number

ADR	3267
RID	3267
ADN	3267
IMDG	3267
IATA	3267

14.2. UN proper shipping name

ADR	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Ethanolamine,C12/16-alkyl bis hydroxy ethyl benzyl ammonium chloride)
RID	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Ethanolamine,C12/16-alkyl bis hydroxy ethyl benzyl ammonium chloride)
ADN	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Ethanolamine,C12/16-alkyl bis hydroxy ethyl benzyl ammonium chloride)
IMDG	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Ethanolamine,C12/16-alkyl bis hydroxy ethyl benzyl ammonium chloride)
IATA	Corrosive liquid, basic, organic, n.o.s. (Ethanolamine,C12/16-alkyl bis hydroxy ethyl benzyl ammonium chloride)

14.3. Transport hazard class(es)

ADR	8
RID	8
ADN	8
IMDG	8
IATA	8

14.4. Packaging group

ADR	II
RID	II
ADN	II
IMDG	II
IATA	II

14.5. Environmental hazards

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.6. Special precautions for user

ADR	not applicable Tunnelcode: (E)
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

VOC content 6,3 %
(2010/75/EU)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

National regulations/information (Great Britain):

Remarks	Control of Substances Hazardous to Health Regulations (COSHH), and related guidance, e.g COSHH Essentials. EH40 Occupational Exposure Limits Chemicals (Hazard Information & Packaging for Supply) Regulations. The Personnel Protective Equipment at Work Regulations. The Carriage of Dangerous Goods by Road Regulations. The Health & Safety at Work Act 1974. (Note: Use latest editions/amendments of above referenced documents.)
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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:

H290 May be corrosive to metals.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.