



Safety Data Sheet

Suma Carbon Remover K21+

Revision: 2023-01-31

Version: 01.0

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

1.1 Product identifier

Trade Name: Suma Carbon Remover K21+

1.2 Recommended use and restrictions on use

See product label.

For professional and industrial use only.

1.3 Details of the supplier of the safety data sheet

Diversey Philippines Inc

Contact details

6756 Ayala Avenue
8 Floor Bankmer Building
Makati City 1226 Philippines
Tel. +63 2 8271 2400

1.4 Emergency telephone number

In case of medical emergency, please seek professional medical advice.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Skin Irrit. 2 (H315)

Eye Dam. 1 (H318)

2.2 Label elements



Signal word: Danger.

Hazard statements:

H315 - Causes skin irritation.

H318 - Causes serious eye damage.

Precautionary statements:

P280 - Wear eye or face protection.

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/physician.

2.3 Other hazards

No other hazards known. Exposure and appropriate engineering controls are specified in subsection 8.2 exposure controls.

2.4 Classification diluted product:

Maximum recommended use concentration (% w/w): 10

Not classified as hazardous

SECTION 3: Composition/information on ingredients

3.1 Substances / Mixtures

Ingredient(s)	CAS #	Classification	Weight %
Monoethanolamine	141-43-5	Skin Corr. 1B (H314) Acute Tox. 4 (H302) Acute Tox. 4 (H312) Acute Tox. 4 (H332) STOT SE 3 (H335) Aquatic Chronic 3 (H412) Eye Dam. 1 (H318)	3-10
Alcohols, C10-16, ethoxylated (7-<15 EO)	68002-97-1	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)	3-10
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine	85480-55-3	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)	1-3
2-(2-butoxyethoxy)ethanol	112-34-5	Eye Irrit. 2 (H319)	1-3

[4] Polymer.

Workplace exposure limit(s), if available, are listed in subsection 8.1.

For the full text of the H phrases mentioned in this Section, see Section 16.

SECTION 4: First aid measures**4.1 Description of first aid measures**

Inhalation: Get medical attention or advice if you feel unwell.
Skin contact: Take off immediately all contaminated clothing and wash it before reuse.
Eye contact: Hold eyelids apart and flush eyes with plenty of lukewarm water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
Ingestion: Rinse mouth. Immediately drink 1 glass of water. Never give anything by mouth to an unconscious person. Get medical attention or advice if you feel unwell.
Self-protection of first aider: Consider personal protective equipment as indicated in subsection 8.2.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: No known effects or symptoms in normal use.
Skin contact: Causes irritation.
Eye contact: Causes severe or permanent damage.
Ingestion: No known effects or symptoms in normal use.

4.3 Indication of immediate medical attention and notes for physician.

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Carbon dioxide. Dry powder. Water spray jet. Fight larger fires with water spray jet or alcohol-resistant foam.

5.2 Special hazards arising from the substance or mixture

No special hazards known.

5.3 Advice for firefighters

As in any fire, wear self contained breathing apparatus and suitable protective clothing including gloves and eye/face protection.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Wear eye/face protection.

6.2 Environmental precautions

Do not allow to enter drainage system, surface or ground water. Dilute with plenty of water.

6.3 Methods and material for containment and cleaning up

Dike to collect large liquid spills. Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust). Do not place spilled materials back into the original container. Collect in closed and suitable containers for disposal.

6.4 Reference to other sections

For personal protective equipment see subsection 8.2. For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Measures to prevent fire and explosions:

No special precautions required.

Measures required to protect the environment:

For environmental exposure controls see subsection 8.2.

Advices on general occupational hygiene:

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not mix with other products unless advised by Diversey. Wash face, hands and any exposed skin thoroughly after handling. Take off contaminated clothing. Wash contaminated clothing before reuse. Avoid contact with eyes. Use only with adequate ventilation. See section 8.2, Exposure controls / Personal protection.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local and national regulations. Store in a closed container. Keep only in original container.

For conditions to avoid see subsection 10.4. For incompatible materials see subsection 10.5.

7.3 Specific end use(s)

No specific advice for end use available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits

Air limit values, if available:

Ingredient(s)	Long term value(s)	Ceiling value(s)
Monoethanolamine	3 ppm 6 mg/m ³	

Biological limit values, if available:

8.2 Exposure controls

The following information applies for the uses indicated in subsection 1.2 of the Safety Data Sheet.

If available, please refer to the product information sheet for application and handling instructions.

Normal use conditions are assumed for this section.

Recommended safety measures for handling the undiluted product:

Covering activities such as filling and transfer of product to application equipment, flasks or buckets

Appropriate engineering controls: If the product is diluted by using specific dosing systems with no risk of splashes or direct skin contact, the personal protection equipment as described in this section is not required.

Appropriate organisational controls: Avoid direct contact and/or splashes where possible. Train personnel.

Personal protective equipment

Eye / face protection:

Safety glasses or goggles (EN 166).

Hand protection:

Chemical-resistant protective gloves (EN 374). Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.
Suggested gloves for prolonged contact: Material: butyl rubber Penetration time: ≥ 480 min Material thickness: ≥ 0.7 mm
Suggested gloves for protection against splashes: Material: nitrile rubber Penetration time: ≥ 30 min Material thickness: ≥ 0.4 mm
In consultation with the supplier of protective gloves a different type providing similar protection may be chosen.

Body protection:

No special requirements under normal use conditions.

Respiratory protection:

No special requirements under normal use conditions.

Environmental exposure controls: No special requirements under normal use conditions.

Recommended safety measures for handling the diluted product:

Maximum recommended use concentration (% w/w): 10

Appropriate engineering controls: No special requirements under normal use conditions.

Appropriate organisational controls: No special requirements under normal use conditions.

Personal protective equipment

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Eye / face protection: No special requirements under normal use conditions.
Hand protection: No special requirements under normal use conditions.
Body protection: No special requirements under normal use conditions.
Respiratory protection: No special requirements under normal use conditions.

Environmental exposure controls: No special requirements under normal use conditions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

	Method / remark
Physical State: Liquid	
Color: Clear , Light , from Clear to Colorless	
Odor: Product specific	
Odor threshold: Not applicable	
pH: ≈ 11 (neat)	ISO 4316
Dilution pH: ≈ 11 (10%)	ISO 4316
Melting point/freezing point (°C): Not determined	Not relevant to classification of this product
Initial boiling point and boiling range (°C): Not determined	See substance data

Flammability (liquid): Not flammable.
Flash point (°C): Not applicable
Sustained combustion: Not applicable
(UN Manual of Tests and Criteria, section 32, L.2)

Evaporation Rate: Not determined	Not relevant to classification of this product
Flammability (solid, gas): Not applicable to liquids	
Lower and upper explosion limit/flammability limit (%): Not determined	See substance data
Vapor pressure: Not determined	
Relative vapor density: Not determined	Not relevant to classification of this product
Relative density: ≈ 1.01 (20 °C)	OECD 109 (EU A.3)
Solubility in / Miscibility with water: Fully miscible	
Partition coefficient: n-octanol/water No information available.	

Substance data, partition coefficient n-octanol/water (log Kow): see subsection 12.3

Autoignition temperature: Not determined
Decomposition temperature: Not determined
Viscosity: Not determined
Explosive properties: Not explosive.
Oxidising properties: Not oxidising.

Not oxidising, based on substance properties

9.2 Other information

Surface tension (N/m): Not determined
Corrosion to metals: Not corrosive to metals

UN Manual of Tests and Criteria, section 37 Weight of evidence

SECTION 10: Stability and reactivity

10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

Stable under normal storage and use conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known under normal storage and use conditions.

10.4 Conditions to avoid

None known under normal storage and use conditions.

10.5 Incompatible materials

Reacts with acids.

10.6 Hazardous decomposition products

None known under normal storage and use conditions.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Mixture data:.

Relevant calculated ATE(s):

ATE - Oral (mg/kg): >2000

ATE - Dermal (mg/kg): >2000

ATE - Inhalatory, vapors (mg/l): 240

Skin irritation and corrosivity**Result:** Skin irritant 2**Species:** Not applicable**Method:** Weight of Evidence

Substance data, where relevant and available, are listed below:.

Acute toxicity

Acute oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
Monoethanolamine	LD ₅₀	1089	Rat	OECD 401 (EU B.1)	
Alcohols, C10-16, ethoxylated (7-<15 EO)	LD ₅₀	≥ 1000		Read across	
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine	LD ₅₀	1515	Rat	Method not given	
2-(2-butoxyethoxy)ethanol	LD ₅₀	2410	Rat	Method not given	

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
Monoethanolamine	LD ₅₀	2504	Rabbit	OECD 402 (EU B.3)	
Alcohols, C10-16, ethoxylated (7-<15 EO)	LD ₅₀	> 2000		Method not given	
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine	LD ₅₀	2504	Rabbit	Method not given	
2-(2-butoxyethoxy)ethanol	LD ₅₀	2764	Rabbit	Method not given	

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
Monoethanolamine	LC ₅₀	> 1.4 No mortality observed	Rat	Method not given	4
Alcohols, C10-16, ethoxylated (7-<15 EO)		No data available			
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine	LC ₅₀	> 5		Method not given	4
2-(2-butoxyethoxy)ethanol		No data available			

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
Monoethanolamine	Corrosive	Rabbit	OECD 404 (EU B.4)	
Alcohols, C10-16, ethoxylated (7-<15 EO)	Not irritant	Rabbit	Method not given	
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine	No data available			
2-(2-butoxyethoxy)ethanol	Not irritant	Rabbit	Method not given	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
Monoethanolamine	Severe damage	Rabbit	OECD 405 (EU B.5)	
Alcohols, C10-16, ethoxylated (7-<15 EO)	Severe damage	Rabbit	Method not given	
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine	No data available			
2-(2-butoxyethoxy)ethanol	Irritant	Rabbit	Method not given	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
Monoethanolamine	Irritating to respiratory tract		Method not given	
Alcohols, C10-16, ethoxylated (7-<15 EO)	No data available			
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine	No data available			
2-(2-butoxyethoxy)ethanol	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
Monoethanolamine	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
Alcohols, C10-16, ethoxylated (7-<15 EO)	Not sensitising	Guinea pig	Method not given	
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine	No data available			
2-(2-butoxyethoxy)ethanol	Not sensitising	Guinea pig	Method not given	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
Monoethanolamine	No data available			
Alcohols, C10-16, ethoxylated (7-<15 EO)	No data available			
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine	No data available			
2-(2-butoxyethoxy)ethanol	No data available			

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Mutagenicity

Ingredient(s)	Result (in-vitro)	Method (in-vitro)	Result (in-vivo)	Method (in-vivo)
Monoethanolamine	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13) OECD 473 OECD 476 (Mouse lymphoma)	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12)
Alcohols, C10-16, ethoxylated (7-<15 EO)	No evidence for mutagenicity, negative test results	Method not given	No evidence for mutagenicity, negative test results	Method not given
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine	No data available		No data available	
2-(2-butoxyethoxy)ethanol	No evidence of genotoxicity, negative test results	Method not given	No evidence of genotoxicity, negative test results	Method not given

Carcinogenicity

Ingredient(s)	Effect
Monoethanolamine	No evidence for carcinogenicity, weight-of-evidence
Alcohols, C10-16, ethoxylated (7-<15 EO)	No evidence for carcinogenicity, weight-of-evidence
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine	No data available
2-(2-butoxyethoxy)ethanol	No data available

Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
Monoethanolamine	NOAEL	Developmental toxicity	> 75	Rabbit	OECD 414 (EU B.31), oral	6 - 15 day(s)	No evidence for developmental toxicity No evidence for reproductive toxicity
Alcohols, C10-16, ethoxylated (7-<15 EO)			No data available		Literature		No evidence for teratogenic effects No evidence for reproductive toxicity
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine			No data available				
2-(2-butoxyethoxy)ethanol			No data available				No evidence for developmental toxicity No evidence for reproductive toxicity

Repeated dose toxicity

Sub-acute or sub-chronic oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
Monoethanolamine	NOAEL	300	Rat		75	
Alcohols, C10-16, ethoxylated (7-<15 EO)		No data available				
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine		No data available				
2-(2-butoxyethoxy)ethanol		No data available				

Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
Monoethanolamine		No data				

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		available				
Alcohols, C10-16, ethoxylated (7-<15 EO)		No data available				
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine		No data available				
2-(2-butoxyethoxy)ethanol		No data available				

Sub-chronic inhalation toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
Monoethanolamine		No data available				
Alcohols, C10-16, ethoxylated (7-<15 EO)		No data available				
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine		No data available				
2-(2-butoxyethoxy)ethanol		No data available				

Chronic toxicity

Ingredient(s)	Exposure route	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time	Specific effects and organs affected	Remark
Monoethanolamine			No data available					
Alcohols, C10-16, ethoxylated (7-<15 EO)			No data available					
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine			No data available					
2-(2-butoxyethoxy)ethanol			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
Monoethanolamine	Respiratory tract
Alcohols, C10-16, ethoxylated (7-<15 EO)	No data available
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine	No data available
2-(2-butoxyethoxy)ethanol	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
Monoethanolamine	No data available
Alcohols, C10-16, ethoxylated (7-<15 EO)	No data available
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine	No data available
2-(2-butoxyethoxy)ethanol	No data available

Aspiration hazard

Substances with an aspiration hazard (H304), if any, are listed in section 3. If relevant, see section 9 for dynamic viscosity and relative density of the product.

Potential adverse health effects and symptoms

Effects and symptoms related to the product, if any, are listed in subsection 4.2.

SECTION 12: Ecological information

12.1 Toxicity

No data is available on the mixture.

Substance data, where relevant and available, are listed below:

Aquatic short-term toxicity

Aquatic short-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
Monoethanolamine	LC ₅₀	349	<i>Cyprinus carpio</i>	OECD 203, semi-static	96
Alcohols, C10-16, ethoxylated (7-<15 EO)	LC ₅₀	> 1-10	<i>Brachydanio rerio</i>	Method not given	96
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine	LC ₅₀	2.22	<i>Pimephales promelas</i>	OECD 203, semi-static	96
2-(2-butoxyethoxy)ethanol	LC ₅₀	> 100	<i>Fish</i>	Method not given	

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Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
Monoethanolamine	EC ₅₀	27.04	<i>Daphnia magna Straus</i>	OECD 202, static	48
Alcohols, C10-16, ethoxylated (7-<15 EO)	EC ₅₀	> 1-10	<i>Daphnia magna Straus</i>	Method not given	48
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine		No data available			
2-(2-butoxyethoxy)ethanol	EC ₅₀	> 100	<i>Daphnia magna Straus</i>	DIN 38412, Part 11	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
Monoethanolamine	EC ₅₀	2.8	<i>Selenastrum capricornutum</i>	OECD 201 (EU C.3)	72
Alcohols, C10-16, ethoxylated (7-<15 EO)	EC ₅₀	> 1-10	<i>Desmodesmus subspicatus</i>	Method not given	72
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine		No data available			
2-(2-butoxyethoxy)ethanol	EC ₅₀	> 100	<i>Desmodesmus subspicatus</i>	Method not given	

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
Monoethanolamine		No data available			
Alcohols, C10-16, ethoxylated (7-<15 EO)		No data available			
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine		No data available			
2-(2-butoxyethoxy)ethanol		No data available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
Monoethanolamine	EC ₅₀	> 1000	Activated sludge	DIN EN ISO 8192-OECD 209-88/302/EEC	3 hour(s)
Alcohols, C10-16, ethoxylated (7-<15 EO)	EC ₅₀	140	Activated sludge	Method not given	
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine		No data available			
2-(2-butoxyethoxy)ethanol	EC ₁₀	1170	<i>Pseudomonas</i>	Method not given	16 hour(s)

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
Monoethanolamine	NOEC	1.2	<i>Oryzias latipes</i>	OECD 210	30 day(s)	
Alcohols, C10-16, ethoxylated (7-<15 EO)		No data available				
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine		No data available				
2-(2-butoxyethoxy)ethanol		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
Monoethanolamine	NOEC	0.85	<i>Daphnia magna</i>	OECD 202	21 day(s)	
Alcohols, C10-16, ethoxylated (7-<15 EO)	EC ₁₀	> 0.1-1	<i>Daphnia sp.</i>	OECD 211		
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine		No data available				
2-(2-butoxyethoxy)ethanol		No data available				

Aquatic toxicity to other aquatic benthic organisms, including sediment-dwelling organisms, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw sediment)	Species	Method	Exposure time (days)	Effects observed
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Monoethanolamine		No data available				
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Terrestrial toxicity

Terrestrial toxicity - earthworms, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
Monoethanolamine		No data available				

Terrestrial toxicity - plants, if available:

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
Monoethanolamine		No data available				

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
Monoethanolamine		No data available				

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
Monoethanolamine		No data available				

12.2 Persistence and degradability**Abiotic degradation**

Abiotic degradation - photodegradation in air, if available:

Abiotic degradation - hydrolysis, if available:

Abiotic degradation - other processes, if available:

Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT ₅₀	Method	Evaluation
Monoethanolamine		DOC reduction	> 90 % in 21 day(s)	OECD 301A	Readily biodegradable
Alcohols, C10-16, ethoxylated (7-<15 EO)	Activated sludge, aerobe	Method not given	> 60 % in 28 day(s)	OECD 301B	Readily biodegradable
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine	Activated sludge, aerobe	CO ₂ production	89% in 29 day(s)	OECD 301B	Readily biodegradable
2-(2-butoxyethoxy)ethanol	Activated sludge, aerobe	COD removal	95% in 28 day(s)	OECD 301C	Readily biodegradable

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

12.3 Bioaccumulative potentialPartition coefficient n-octanol/water (log K_{ow})

Ingredient(s)	Value	Method	Evaluation	Remark
Monoethanolamine	- 1.91	OECD 107	No bioaccumulation expected	
Alcohols, C10-16, ethoxylated (7-<15 EO)	3.55	QSAR	No bioaccumulation expected	
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine	No data available			
2-(2-butoxyethoxy)ethanol	0.56	Method not given	No bioaccumulation expected	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
Monoethanolamine	No data available				

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Alcohols, C10-16, ethoxylated (7-<15 EO)	No data available				
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine	No data available				
2-(2-butoxyethoxy)ethanol	1.4		QSAR	Low potential for bioaccumulation	

12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log Koc	Desorption coefficient Log Koc(des)	Method	Soil/sediment type	Evaluation
Monoethanolamine	0.067		Model calculation		Potential for mobility in soil, soluble in water Adsorption to solid soil phase is not expected
Alcohols, C10-16, ethoxylated (7-<15 EO)	No data available				
benzenesulphonic acid, mono-C10-13-alkyl derivs., compds. with ethanolamine	No data available				
2-(2-butoxyethoxy)ethanol	No data available				Potential for mobility in soil, soluble in water

12.5 Other adverse effects

No other adverse effects known.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

Waste from residues / unused products (undiluted product): The concentrated contents or contaminated packaging should be disposed of by a certified handler or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging material is suitable for energy recovery or recycling in line with local legislation.

Empty packaging**Recommendation:****Suitable cleaning agents:**

Dispose of observing national or local regulations.

Water, if necessary with cleaning agent.

SECTION 14: Transport information**Land transport, Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)****14.1 UN number:** Non-dangerous goods**14.2 UN proper shipping name:** Non-dangerous goods**14.3 Transport hazard class(es):** Non-dangerous goods**14.4 Packing group:** Non-dangerous goods**14.5 Environmental hazards:** Non-dangerous goods**14.6 Special precautions for user:** Non-dangerous goods**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code:** The product is not transported in bulk tankers. Non-dangerous goods**Other relevant information:**

The product has been classified, labelled and packaged in accordance with the requirements of national road transport regulations and the provisions of the IMDG Code. Transport regulations include special provisions for certain classes of dangerous goods packed in limited quantities.

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

- DOLE Department Order No. 136-14 Guidelines for the Implementation of Globally Harmonized System (GHS) in Chemical Safety Program in the Workplace

SECTION 16: Other information

The information in this document is based on our best present knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally binding contract

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Full text of the H phrases mentioned in section 3:

- 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.
- H335 - May cause respiratory irritation.
- H412 - Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms:

- DNEL - Derived No Effect Level
- PNEC - Predicted No Effect Concentration
- ATE - Acute Toxicity Estimate
- LD50 - Lethal Dose, 50% / Median Lethal dose
- LC50 - Lethal Concentration, 50% / Median Lethal Concentration
- EC50 - effective concentration, 50%
- NOEL - No observed effect level
- NOAEL - No observed adverse effect level
- STOT-RE - Specific target organ toxicity (repeated exposure)
- STOT-SE - Specific target organ toxicity (single exposure)
- OECD - Organization for Economic Cooperation and Development

End of Safety Data Sheet