



Suma Break Up Heavy Duty

Revision: 2023-06-06

Version: 02.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Trade name: Suma Break Up Heavy Duty

1.2 Recommended use and restrictions on use

See product label.

For professional use only.

1.3 Details of the supplier of the safety data sheet

Diversey Hygiene Representative Office - Vietnam

Contact details

Viettel Building, Tower A2, 12th Floor, 285 Cach Mang Thang Tam Street, Ward 12, District 10, HCMC, Vietnam

1.4 Emergency telephone number

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

SECTION 2: Composition/information on ingredients**2.1 Substances / Mixtures**

Ingredient(s)	CAS number	EC number	Classification	Weight percent
pentasodium triphosphate	7758-29-4	231-838-7	Acute Tox. 5 (H303)	3-10
disodium metasilicate	1344-09-8	215-687-4	Skin Corr. 1B (H314) STOT SE 3 (H335) Eye Dam. 1 (H318) Met. Corr. 1 (H290)	3-10
sodium alkylbenzenesulphonate	90194-45-9	290-656-6	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)	1-3
sodium cumenesulphonate	28348-53-0	239-854-6	Eye Irrit. 2A (H319)	1-3
alkyl alcohol ethoxylate	68439-46-3	[4]	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Aquatic Acute 2 (H401)	1-3
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	61789-40-0	263-058-8	Acute Tox. 5 (H303) Acute Tox. 5 (H313) Eye Dam. 1 (H318) Aquatic Acute 2 (H401) Aquatic Chronic 3 (H412)	1-3
sodium hydroxide	1310-73-2	215-185-5	Skin Corr. 1A (H314) Met. Corr. 1 (H290)	0.01-0.1

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

ATE, if available, are listed in section 11.

SECTION 3: Hazards identification**3.1 Classification of the substance or mixture**

Serious eye damage, Category 1

Skin irritation, Category 2

Acute aquatic toxicity, Category 3

Corrosive to metals, Category 1

3.2 Label elements

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Signal word: Danger.

Hazard statements:

H290 - May be corrosive to metals.

H315 - Causes skin irritation.

H318 - Causes serious eye damage.

H402 - Harmful to aquatic life.

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 CENTRE, doctor or physician.

3.3 Other hazards

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation:

Get medical attention or advice if you feel unwell.

Skin contact:

Wash skin with plenty of lukewarm, gently flowing water. If skin irritation occurs: Get medical advice or attention.

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 CENTRE, doctor or 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 any immediate medical attention and special treatment needed

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. Repeated or prolonged contact: Wear suitable gloves.

6.2 Environmental precautions

Dilute with plenty of water. Do not allow to enter drainage system, surface or ground water. Do not allow to enter the ground/soil. Inform responsible authorities in case undiluted product reaches drainage system, surface or ground water or the ground/soil.

6.3 Methods and material for containment and cleaning up

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Dyke to collect large liquid spills. Absorb with liquid-binding material (sand, diatomite, universal binders). 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 skin and eyes. Do not breathe spray. Use only with adequate ventilation. See chapter 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 packaging.

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)	Short term value(s)
sodium hydroxide	0.5 mg/m ³	1 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:

Appropriate engineering controls: Use only in well ventilated areas.
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:

Rinse and dry hands after use. For prolonged contact protection for the skin may be necessary.

Repeated or prolonged contact: 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:

Respiratory protection is not normally required. However, inhalation of vapour, spray, gas or aerosols should be avoided. Trigger spray bottle application: No special requirements under normal use conditions. Apply technical measures to comply with the occupational exposure limits, if available.

Environmental exposure controls: Should not reach sewage water or drainage ditch undiluted or unneutralised.

SECTION 9: Physical and chemical properties

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9.1 Information on basic physical and chemical properties

	Method / remark
Physical state: Liquid	
Colour: Clear , Pale , Yellow	
Odour: Product specific	
Odour threshold: Not applicable	
pH: >= 11.5 (neat)	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	

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	
Vapour pressure: Not determined	
Relative vapour density No data available	Not relevant to classification of this product
Relative density: ≈ 1.15 (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 applicable.
Viscosity: Not determined
Explosive properties: Not explosive.
Oxidising properties: Not oxidising.

9.2 Other information

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

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

May be corrosive to metals.

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): >5000

ATE - Dermal (mg/kg): >5000

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Skin irritation and corrosivity**Result:** Not corrosive to skin**Species:** Not applicable**Method:** OECD 431 (EU B.40 bis), EpiskinSubstance data, where relevant and available, are listed below:**Acute toxicity**

Acute oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
pentasodium triphosphate	LD ₀	> 2000	Rat	OECD 401 (EU B.1)	
disodium metasilicate	LD ₅₀	770 - 820	Mouse	Method not given	
sodium alkylbenzenesulphonate	LD ₅₀	> 1470	Rat	OECD 401 (EU B.1)	
sodium cumenesulphonate	LD ₅₀	> 7000	Rat	Method not given	
alkyl alcohol ethoxylate	LD ₅₀	1400	Rat	Weight of evidence	
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	LD ₅₀	2335	Rat	OECD 401 (EU B.1)	
sodium hydroxide		No data available			

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
pentasodium triphosphate	LD ₅₀	> 4640	Rabbit	Method not given	
disodium metasilicate		No data available			
sodium alkylbenzenesulphonate		No data available			
sodium cumenesulphonate	LD ₅₀	> 2000	Rabbit	Method not given	
alkyl alcohol ethoxylate	LD ₅₀	2000 - 5000	Rat	Weight of evidence	
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	LD ₅₀	> 2000	Rat		
sodium hydroxide	LD ₅₀	1350	Rabbit	Method not given	

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
pentasodium triphosphate	LC ₅₀	0.39 (dust)	Rat	EPA OPP 81-3	4
disodium metasilicate		No data available			
sodium alkylbenzenesulphonate		No data available			
sodium cumenesulphonate	LC ₅₀	> 770	Rat	Method not given	4
alkyl alcohol ethoxylate		No data available			
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		No data available			
sodium hydroxide		No data available			

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
pentasodium triphosphate	Not irritant	Rabbit	OECD 404 (EU B.4)	
disodium metasilicate	Corrosive		Method not given	
sodium alkylbenzenesulphonate	No data available			
sodium cumenesulphonate	Mild irritant	Rabbit	OECD 404 (EU B.4)	
alkyl alcohol ethoxylate	Not irritant		Weight of evidence	
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	Corrosive Mild irritant	Rabbit	OECD 404 (EU B.4)	
sodium hydroxide	Corrosive	Rabbit	Method not given	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
pentasodium triphosphate	Not corrosive or irritant	Rabbit	OECD 405 (EU B.5)	
disodium metasilicate	Corrosive		Method not given	
sodium alkylbenzenesulphonate	No data available			
sodium cumenesulphonate	Irritant	Rabbit	OECD 405 (EU B.5)	
alkyl alcohol ethoxylate	Severe damage	Rabbit	Weight of evidence OECD 437	
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl	Corrosive	Rabbit	OECD 405 (EU B.5)	

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derivs., hydroxides, inner salts			
sodium hydroxide	Corrosive	Rabbit	Method not given

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
pentasodium triphosphate	No data available			
disodium metasilicate	No data available			
sodium alkylbenzenesulphonate	No data available			
sodium cumenesulphonate	No data available			
alkyl alcohol ethoxylate	No data available			
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	No data available			
sodium hydroxide	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
pentasodium triphosphate	Not sensitising	Mouse	OECD 429 (EU B.42)	
disodium metasilicate	No data available			
sodium alkylbenzenesulphonate	No data available			
sodium cumenesulphonate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
alkyl alcohol ethoxylate	Not sensitising		Weight of evidence	
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	Not sensitising	Guinea pig	OECD 406 (EU B.6)	
sodium hydroxide	Not sensitising		Human repeated patch test	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
pentasodium triphosphate	No data available			
disodium metasilicate	No data available			
sodium alkylbenzenesulphonate	No data available			
sodium cumenesulphonate	No data available			
alkyl alcohol ethoxylate	No data available			
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	No data available			
sodium hydroxide	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)
pentasodium triphosphate	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13)	No evidence of genotoxicity, negative test results	OECD 475 (EU B.11)
disodium metasilicate	No data available		No data available	
sodium alkylbenzenesulphonate	No data available		No data available	
sodium cumenesulphonate	No evidence for mutagenicity, negative test results	Method not given	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12)
alkyl alcohol ethoxylate	No evidence for mutagenicity, negative test results	OECD 473	No data available	
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	No data available		No data available	
sodium hydroxide	No evidence for mutagenicity, negative test results	DNA repair test on rat hepatocytes OECD 473	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12) OECD 475 (EU B.11)

Carcinogenicity

Ingredient(s)	Effect
pentasodium triphosphate	No evidence for carcinogenicity, negative test results
disodium metasilicate	No data available
sodium alkylbenzenesulphonate	No data available
sodium cumenesulphonate	No evidence for carcinogenicity, negative test results
alkyl alcohol ethoxylate	No evidence for carcinogenicity, negative test results
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	No data available
sodium hydroxide	No evidence for carcinogenicity, weight-of-evidence

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Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
pentasodium triphosphate	NOAEL	Developmental toxicity	141	Rat	Not known		No evidence for reproductive toxicity
disodium metasilicate			No data available				
sodium alkylbenzenesulphonate			No data available				
sodium cumenesulphonate	NOAEL	Teratogenic effects	> 3000	Rat	Non guideline test		
alkyl alcohol ethoxylate	NOAEL		> 250	Rat	Not known		No effects on fertility No developmental toxicity
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts			No data available				
sodium hydroxide			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
pentasodium triphosphate		No data available				
disodium metasilicate	NOAEL	> 227 - 237	Rat	Method not given		
sodium alkylbenzenesulphonate		No data available				
sodium cumenesulphonate	NOAEL	763 - 3534		OECD 408 (EU B.26)	90	
alkyl alcohol ethoxylate	NOAEL	80 - 400		OECD 408 (EU B.26)		
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		No data available				
sodium hydroxide		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
pentasodium triphosphate		No data available				
disodium metasilicate		No data available				
sodium alkylbenzenesulphonate		No data available				
sodium cumenesulphonate	NOAEL	440	Mouse	Method not given	90	
alkyl alcohol ethoxylate	NOAEL	80		OECD 411 (EU B.28)	90	
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		No data available				
sodium hydroxide		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
pentasodium triphosphate		No data available				
disodium metasilicate		No data available				
sodium alkylbenzenesulphonate		No data available				
sodium cumenesulphonate		No data available				
alkyl alcohol ethoxylate		No data available				
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		No data available				
sodium hydroxide		No data available				

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Chronic toxicity

Ingredient(s)	Exposure route	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time	Specific effects and organs affected	Remark
pentasodium triphosphate	Oral	NOAEL	225	Rat	Equivalent of OECD 412 (EU B.8)	24 month(s)		
disodium metasilicate			No data available					
sodium alkylbenzenesulphonate			No data available					
sodium cumenesulphonate	Dermal	NOAEL	727	Mouse	Method not given	24 month(s)		
alkyl alcohol ethoxylate			No data available					
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts			No data available					
sodium hydroxide			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
pentasodium triphosphate	No data available
disodium metasilicate	No data available
sodium alkylbenzenesulphonate	No data available
sodium cumenesulphonate	No data available
alkyl alcohol ethoxylate	No data available
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	No data available
sodium hydroxide	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
pentasodium triphosphate	No data available
disodium metasilicate	No data available
sodium alkylbenzenesulphonate	No data available
sodium cumenesulphonate	No data available
alkyl alcohol ethoxylate	No data available
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	No data available
sodium hydroxide	No data available

Aspiration hazard

Substances with an aspiration hazard (H304), if any, are listed in section 3.

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)
pentasodium triphosphate	LC ₅₀	1850	<i>Brachydanio rerio</i>	Method not given	24
disodium metasilicate	LC ₅₀	210	<i>Brachydanio rerio</i>	Method not given	96
sodium alkylbenzenesulphonate	LC ₅₀	No data available			
sodium cumenesulphonate	LC ₅₀	> 1000	Fish	EPA-OPPTS 850.1075	96
alkyl alcohol ethoxylate	LC ₅₀	5 - 7	Fish	92/69/EEC, C1,	96

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Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (h)
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	LC ₅₀	1.11	Fish	OECD 203, static	96
sodium hydroxide	LC ₅₀	35	Various species	Method not given	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
pentasodium triphosphate	EC ₅₀	> 100	<i>Daphnia magna Straus</i>	40 CFR 797.1930	48
disodium metasilicate	EC ₅₀	1700	<i>Daphnia</i>	Method not given	48
sodium alkylbenzenesulphonate	EC ₅₀	1.62	<i>Daphnia magna Straus</i>		48
sodium cumenesulphonate	EC ₅₀	> 1000	<i>Daphnia</i>	EPA-OPPTS 850.1010	48
alkyl alcohol ethoxylate	EC ₅₀	5.3	<i>Daphnia</i>	92/69/EEC	48
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	EC ₅₀	1.9	<i>Daphnia magna Straus</i>	OECD 202 (EU C.2)	48
sodium hydroxide	EC ₅₀	40.4	<i>Ceriodaphnia sp.</i>	Method not given	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
pentasodium triphosphate	EC ₅₀	160	<i>Desmodesmus subspicatus</i>	ISO/TC147/SC5/WG5 N84	96
disodium metasilicate	EC ₅₀	207	<i>Chlorella pyrenoidosa</i>	Method not given	72
sodium alkylbenzenesulphonate	EC ₅₀	29	<i>Selenastrum capricornutum</i>		96
sodium cumenesulphonate	E _r C ₅₀	310	Not specified		72
alkyl alcohol ethoxylate	EC ₅₀	1.4 - 47	Not specified	92/69/EEC	72
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	EC ₅₀	2.4	<i>Desmodesmus subspicatus</i>		72
sodium hydroxide	EC ₅₀	22	<i>Photobacterium phosphoreum</i>	Method not given	0.25

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
pentasodium triphosphate		No data available			
disodium metasilicate		No data available			
sodium alkylbenzenesulphonate		No data available			
sodium cumenesulphonate		No data available			
alkyl alcohol ethoxylate		No data available			
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		No data available			
sodium hydroxide		No data available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
pentasodium triphosphate		No data available			
disodium metasilicate	EC ₅₀	> 100	Activated sludge	Method not given	3 hour(s)
sodium alkylbenzenesulphonate		No data available			
sodium cumenesulphonate	E _r C ₅₀	> 1000	Bacteria	OECD 209	3 hour(s)
alkyl alcohol ethoxylate	EC ₅₀	> 140	Bacteria	DIN EN ISO 8192-OECD 209-88/302/EEC	3 hour(s)
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		No data available			
sodium hydroxide		No data available			

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value	Species	Method	Exposure	Effects observed
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		(mg/l)			time	
pentasodium triphosphate	LOEC	5	<i>Not specified</i>	OECD 212	96 hour(s)	
disodium metasilicate		No data available				
sodium alkylbenzenesulphonate		No data available				
sodium cumenesulphonate		No data available				
alkyl alcohol ethoxylate	EC ₁₀	8.983	<i>Not specified</i>	Method not given	21 day(s)	
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		No data available				
sodium hydroxide		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
pentasodium triphosphate		No data available				
disodium metasilicate		No data available				
sodium alkylbenzenesulphonate		No data available				
sodium cumenesulphonate		No data available				
alkyl alcohol ethoxylate	EC ₁₀	2.579	<i>Daphnia sp.</i>	Method not given	21 day(s)	
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		No data available				
sodium hydroxide		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
sodium cumenesulphonate		No data available				
sodium hydroxide		No data available				

Terrestrial toxicity

Terrestrial toxicity - soil invertebrates, including earthworms, if available:

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

Terrestrial toxicity - plants, if available:

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

Terrestrial toxicity - birds, if available:

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

Terrestrial toxicity - beneficial insects, if available:

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

sodium hydroxide		No data available				
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Terrestrial toxicity - soil bacteria, if available:

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

12.2 Persistence and degradability

Abiotic degradation

Abiotic degradation - photodegradation in air, if available:

Ingredient(s)	Half-life time	Method	Evaluation	Remark
sodium cumenesulphonate	No data available			
sodium hydroxide	13 second(s)	Method not given	Rapidly photodegradable	

Abiotic degradation - hydrolysis, if available:

Ingredient(s)	Half-life time in fresh water	Method	Evaluation	Remark
sodium cumenesulphonate	No data available			
sodium hydroxide	No data available			

Abiotic degradation - other processes, if available:

Ingredient(s)	Type	Half-life time	Method	Evaluation	Remark
sodium cumenesulphonate		No data available			
sodium hydroxide		No data available			

Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT ₅₀	Method	Evaluation
pentasodium triphosphate					Not applicable (inorganic substance)
disodium metasilicate					Not applicable (inorganic substance)
sodium alkylbenzenesulphonate				OECD 301B	Readily biodegradable
sodium cumenesulphonate	Activated sludge, aerobe	CO ₂ production	100 % in 28 day(s)	OECD 301B	Readily biodegradable
alkyl alcohol ethoxylate				OECD 301B	Readily biodegradable
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts				OECD 301B	Readily biodegradable
sodium hydroxide					Not applicable (inorganic substance)

Ready biodegradability - anaerobic and marine conditions, if available:

Ingredient(s)	Medium & Type	Analytical method	DT ₅₀	Method	Evaluation
sodium cumenesulphonate					No data available
sodium hydroxide					No data available

Degradation in relevant environmental compartments, if available:

Ingredient(s)	Medium & Type	Analytical method	DT ₅₀	Method	Evaluation
sodium cumenesulphonate					No data available
sodium hydroxide					No data available

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log K_{ow})

Ingredient(s)	Value	Method	Evaluation	Remark
pentasodium triphosphate	No data available			
disodium metasilicate	No data available			
sodium alkylbenzenesulphonate	No data available			
sodium cumenesulphonate	-1.5	Method not given	Low potential for bioaccumulation	
alkyl alcohol ethoxylate	3.11 - 4.19	Method not given	High potential for bioaccumulation	
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides,	No data available			

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inner salts			
sodium hydroxide	No data available		Not relevant, does not bioaccumulate

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
pentasodium triphosphate	No data available			No bioaccumulation expected	
disodium metasilicate	No data available				
sodium alkylbenzenesulphonate	No data available				
sodium cumenesulphonate	3.16		QSAR	Low potential for bioaccumulation	
alkyl alcohol ethoxylate	< 500		Method not given	High potential for bioaccumulation	
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	No data available				
sodium hydroxide	No data available				

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
pentasodium triphosphate	No data available				
disodium metasilicate	No data available				
sodium alkylbenzenesulphonate	No data available				
sodium cumenesulphonate	No data available				
alkyl alcohol ethoxylate	No data available				Potential for mobility in soil, soluble in water
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	No data available				
sodium hydroxide	No data available				Mobile in soil

12.5 Other adverse effects

No other adverse effects known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste from residues / unused products:

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:

Dispose of observing national or local regulations.

Suitable cleaning agents:

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: 1719

14.2 UN proper shipping name:

Caustic alkali liquid, n.o.s. (disodium trioxosilicate)

14.3 Transport hazard class(es):

Transport hazard class (and subsidiary risks): 8

14.4 Packing group: III

14.5 Environmental hazards:

Environmentally hazardous: No

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Marine pollutant: No

14.6 Special precautions for user: None known.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: The product is not transported in bulk tankers.

Other relevant information:

IMO/IMDG

EmS: F-A, S-B

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

- Decree 108/2008/NP-CP Circular No.: 04/2012/TT-BCT Regulations on the Classification and Labeling of Chemicals

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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This data sheet contains changes from the previous version in section(s): 1, 2, 4, 6, 7, 8, 9, 10, 14, 16

Abbreviations and acronyms:

- ATE - Acute Toxicity Estimate
- DNEL - Derived No Effect Limit
- EC50 - effective concentration, 50%
- LC50 - Lethal Concentration, 50% / Median Lethal Concentration
- LD50 - Lethal Dose, 50% / Median Lethal dose
- NOAEL - No observed adverse effect level
- NOEL - No observed effect level
- OECD - Organisation for Economic Cooperation and Development
- PNEC - Predicted No Effect Concentration
- STOT-RE - Specific target organ toxicity (repeated exposure)
- STOT-SE - Specific target organ toxicity (single exposure)
- H290 - May be corrosive to metals.
- H302 - Harmful if swallowed.
- H303 - May be harmful if swallowed.
- 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.
- H412 - Harmful to aquatic life with long lasting effects.

End of Safety Data Sheet