



Fatsolve VF21

Revision: 2022-11-04

Version: 06.0

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

1.1 Product identifier

Trade name: Fatsolve VF21

UFI: KR51-D0YX-P00Q-TGVD

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

Product use:	Open plant cleaning chemical. For industrial use only..
Uses advised against:	Uses other than those identified are not recommended.

SWED - Sector-specific worker exposure description :

AISE_SWED_IS_8b_1
AISE_SWED_IS_4_1
AISE_SWED_IS_7_4
AISE_SWED_IS_7_5

1.3 Details of the supplier of the safety data sheet

Diversey Europe Operations BV, Maarssenbroeksedijk 2, 3542DN Utrecht, The Netherlands

Contact details

Diversey Ltd
Weston Favell Centre, Northampton NN3 8PD, United Kingdom
Tel: 01604 405311, Fax: 01604 406809
Regulatory Email: customerservice.uk@diversey.com

1.4 Emergency telephone number

Seek medical advice (show the label or safety data sheet where possible)
For medical or environmental emergency only:
call 0800 052 0185

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Skin Corr. 1B (H314)
Eye Dam. 1 (H318)
Met. Corr. 1 (H290)

2.2 Label elements



Signal word: Danger.

Contains sodium alkylbenzenesulphonate (Sodium Dodecylbenzenesulfonate), sodium silicate (Sodium Metasilicate), tetrasodium ethylene diamine tetraacetate (Tetrasodium EDTA)

Hazard statements:

H290 - May be corrosive to metals.
H314 - Causes severe skin burns and eye damage.

Precautionary statements:

P280 - Wear protective gloves, protective clothing and eye or face protection.
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

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Continue rinsing.

P310 - Immediately call a POISON CENTRE, doctor or physician.

2.3 Other hazards

No other hazards known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Ingredient(s)	EC number	CAS number	REACH number	Classification	Notes	Weight percent
sodium alkylbenzenesulphonate	290-656-6	90194-45-9	[1]	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)		10-20
sodium silicate	215-687-4	1344-09-8	[1]	Skin Corr. 1B (H314) STOT SE 3 (H335) Eye Dam. 1 (H318) Met. Corr. 1 (H290)		3-10
tetrasodium ethylene diamine tetraacetate	200-573-9	64-02-8	01-2119486762-27	Acute Tox. 4 (H302) Acute Tox. 4 (H332) STOT RE 2 (H373) Eye Dam. 1 (H318)		3-10
2-(2-butoxyethoxy)ethanol	203-961-6	112-34-5	01-2119475104-44	Eye Irrit. 2 (H319)		1-3
sodium cumenesulphonate	239-854-6	15763-76-5	01-2119489411-37	Eye Irrit. 2 (H319)		1-3
sodium hydroxide	215-185-5	1310-73-2	01-2119457892-27	Skin Corr. 1A (H314) Met. Corr. 1 (H290)		0.1-1

Specific concentration limits

sodium hydroxide:

- Eye Dam. 1 (H318) >= 3% > Eye Irrit. 2 (H319) >= 0.5%
- Skin Corr. 1A (H314) >= 5% > Skin Corr. 1B (H314) >= 2% > Skin Irrit. 2 (H315) >= 0.5%

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

ATE, if available, are listed in section 11.

[1] Exempted: ionic mixture. See Regulation (EC) No 1907/2006, Annex V, paragraph 3 and 4. This salt is potentially present, based on calculation, and included for classification and labelling purposes only. Each starting material of the ionic mixture is registered, as required.

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

SECTION 4: First aid measures

4.1 Description of first aid measures

General Information:

If unconscious place in recovery position and seek medical advice. Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator.

Inhalation:

Remove person to fresh air and keep comfortable for breathing. Get medical attention or advice if you feel unwell.

Skin contact:

Wash skin with plenty of lukewarm, gently flowing water for at least 30 minutes. Wash skin with plenty of lukewarm, gently flowing water. Take off immediately all contaminated clothing and wash it before reuse. Immediately call a POISON CENTRE, doctor or physician. 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. Do NOT induce vomiting. Keep at rest. Immediately call a POISON CENTRE, doctor or physician.

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 severe burns.

Eye contact:

Causes severe or permanent damage.

Ingestion:

Ingestion will lead to a strong caustic effect on mouth and throat and to the danger of perforation of oesophagus and stomach.

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

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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 suitable protective clothing. Wear eye/face protection. Wear suitable gloves.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Dyke to collect large liquid spills. Use neutralising agent. 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 immediately all contaminated clothing. Wash contaminated clothing before reuse. Avoid contact with skin and eyes. 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)	UK - Long term value(s)	UK - Short term value(s)
2-(2-butoxyethoxy)ethanol	10 ppm 67.5 mg/m ³	15 ppm 101.2 mg/m ³
sodium hydroxide		2 mg/m ³

Biological limit values, if available:

Recommended monitoring procedures, if available:

Additional exposure limits under the conditions of use, if available:

DNEL/DMEL and PNEC values**Human exposure**

DNEL/DMEL oral exposure - Consumer (mg/kg bw)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sodium alkylbenzenesulphonate	-	-	-	0.425
sodium silicate	-	-	-	0.74

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tetrasodium ethylene diamine tetraacetate	-	-	-	25
2-(2-butoxyethoxy)ethanol	-	-	-	1.25
sodium cumenesulphonate	-	-	-	3.8
sodium hydroxide	-	-	-	-

DNEL/DMEL dermal exposure - Worker

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
sodium alkylbenzenesulphonate	No data available	-	No data available	-
sodium silicate	No data available	-	No data available	1.49
tetrasodium ethylene diamine tetraacetate	-	-	-	-
2-(2-butoxyethoxy)ethanol	No data available	-	No data available	20
sodium cumenesulphonate	-	-	-	136.25
sodium hydroxide	2 %	-	-	-

DNEL/DMEL dermal exposure - Consumer

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
sodium alkylbenzenesulphonate	No data available	-	No data available	-
sodium silicate	No data available	-	No data available	0.74
tetrasodium ethylene diamine tetraacetate	-	-	-	-
2-(2-butoxyethoxy)ethanol	No data available	-	No data available	10
sodium cumenesulphonate	-	-	-	68.1
sodium hydroxide	2 %	-	-	-

DNEL/DMEL inhalatory exposure - Worker (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sodium alkylbenzenesulphonate	-	-	-	-
sodium silicate	-	-	-	6.22
tetrasodium ethylene diamine tetraacetate	3	3	1.5	1.5
2-(2-butoxyethoxy)ethanol	101.2	-	67.5	67.5
sodium cumenesulphonate	-	-	-	26.9
sodium hydroxide	-	-	1	-

DNEL/DMEL inhalatory exposure - Consumer (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sodium alkylbenzenesulphonate	-	-	-	-
sodium silicate	-	-	-	1.55
tetrasodium ethylene diamine tetraacetate	1.2	1.2	0.6	-
2-(2-butoxyethoxy)ethanol	50.6	-	34	34
sodium cumenesulphonate	-	-	-	6.6
sodium hydroxide	-	-	1	-

Environmental exposure

Environmental exposure - PNEC

Ingredient(s)	Surface water, fresh (mg/l)	Surface water, marine (mg/l)	Intermittent (mg/l)	Sewage treatment plant (mg/l)
sodium alkylbenzenesulphonate	-	-	-	-
sodium silicate	7.5	1	7.5	1000
tetrasodium ethylene diamine tetraacetate	2.2	0.22	1.2	43
2-(2-butoxyethoxy)ethanol	1	0.1	3.9	200
sodium cumenesulphonate	0.23	0.023	2.3	100
sodium hydroxide	-	-	-	-

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m ³)
sodium alkylbenzenesulphonate	-	-	-	-
sodium silicate	-	-	-	-
tetrasodium ethylene diamine tetraacetate	-	-	0.72	-
2-(2-butoxyethoxy)ethanol	4	0.4	0.4	-
sodium cumenesulphonate	0.862	0.0862	0.037	-
sodium hydroxide	-	-	-	-

8.2 Exposure controls

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

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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:** 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.

REACH use scenarios considered for the undiluted product:

	SWED - Sector-specific worker exposure description	LCS	PROC	Duration (min)	ERC
Automatic transfer and dilution	AISE_SWED_IS_8b_1	IS	PROC 8b	60	ERC4

Personal protective equipment

Eye / face protection:

Safety glasses or goggles (EN 166). The use of a full-face shield or other full-face protection is strongly recommended when handling open containers or if splashes may occur.

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:

Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may occur (EN 14605).

Respiratory protection:

If exposure to liquid particles or splashes cannot be avoided use: half mask (EN 140) with particle filter P2 (EN 143) or full-face mask (EN 136) with particle filter P1 (EN 143) Consider specific local use conditions. In consultation with the supplier of respiratory protection equipment a different type providing similar protection may be chosen. Specific applications tools may be available to limit exposure. Please refer to the product information sheet for the possibilities. 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.

Recommended safety measures for handling the diluted product:

Recommended maximum concentration (% w/w): 10

- Appropriate engineering controls:** Provide a good standard of general ventilation. Ensure that foam equipment does not generate respirable particles.

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

REACH use scenarios considered for the diluted product:

	SWED	LCS	PROC	Duration (min)	ERC
Automatic application in a dedicated system	AISE_SWED_IS_4_1	IS	PROC 4	480	ERC8a
Foam spraying	AISE_SWED_IS_7_4	IS	PROC 7	480	ERC4
Spray application	AISE_SWED_IS_7_5				

Personal protective equipment

Eye / face protection:

Safety glasses or goggles (EN 166) are always recommended for foam applications.

Hand protection:

Chemical-resistant protective gloves (EN 374) are always recommended for foam applications. 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

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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Information in this section refers to the product, unless it is specifically stated that substance data is listed

Physical state: Liquid

Colour: Clear , Yellow

Odour: Product specific

Odour threshold: Not applicable

Melting point/freezing point (°C): Not determined

Initial boiling point and boiling range (°C): Not determined

Method / remark

Not relevant to classification of this product
See substance data

Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
sodium alkylbenzenesulphonate	No data available		
sodium silicate	No data available		
tetrasodium ethylene diamine tetraacetate	No data available	Non-experimental data	
2-(2-butoxyethoxy)ethanol	225-233	Method not given	1013
sodium cumenesulphonate	No data available		
sodium hydroxide	> 990	Method not given	

Method / remark

Flammability (solid, gas): Not applicable to liquids

Flammability (liquid): Not flammable.

Flash point (°C): > 100 °C

Sustained combustion: Not applicable.

(UN Manual of Tests and Criteria, section 32, L.2)

Lower and upper explosion limit/flammability limit (%): Not determined

closed cup

See substance data

Substance data, flammability or explosive limits, if available:

Ingredient(s)	Lower limit (% vol)	Upper limit (% vol)
2-(2-butoxyethoxy)ethanol	0.8	5.9

Method / remark

Autoignition temperature: Not determined

Decomposition temperature: Not applicable.

pH: >= 11.5 (neat)

Dilution pH: > 11 (10 %)

Kinematic viscosity: Not determined

Solubility in / Miscibility with water: Fully miscible

ISO 4316

ISO 4316

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
sodium alkylbenzenesulphonate	No data available		
sodium silicate	350	Method not given	20
tetrasodium ethylene diamine tetraacetate	500	Method not given	20
2-(2-butoxyethoxy)ethanol	955 Soluble	Method not given	20
sodium cumenesulphonate	493 Soluble	Method not given	20
sodium hydroxide	1000	Method not given	20

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

Method / remark

Vapour pressure: Not determined

See substance data

Substance data, vapour pressure

Ingredient(s)	Value (Pa)	Method	Temperature (°C)
sodium alkylbenzenesulphonate	No data available		
sodium silicate	No data available		
tetrasodium ethylene diamine tetraacetate	0.000000002	Read across	25
2-(2-butoxyethoxy)ethanol	2.7	Method not given	20
sodium cumenesulphonate	No data available		
sodium hydroxide	< 1330	Method not given	20

Method / remark

Relative density: ≈ 1.11 (20 °C)

Relative vapour density: No data available.

Particle characteristics: No data available.

OECD 109 (EU A.3)

Not relevant to classification of this product

Not applicable to liquids.

9.2 Other information**9.2.1 Information with regard to physical hazard classes****Explosive properties:** Not explosive.**Oxidising properties:** Not oxidising.**Corrosion to metals:** Corrosive**9.2.2 Other safety characteristics****Alkali reserve:** ≈ 2.3 (g NaOH / 100g; pH=10)**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. 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 - Inhalatory, mists (mg/l): >5

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)	ATE (mg/kg)
sodium alkylbenzenesulphonate	LD ₅₀	> 1470	Rat	OECD 401 (EU B.1)		12000
sodium silicate	LD ₅₀	770 - 820	Mouse	Method not given		Not established
tetrasodium ethylene diamine tetraacetate	LD ₅₀	1780	Rat	OECD 401 (EU B.1)		16000
2-(2-butoxyethoxy)ethanol	LD ₅₀	2410	Rat	Method not given		Not established
sodium cumenesulphonate	LD ₅₀	> 7000	Rat	Method not given		Not established
sodium hydroxide		No data available				Not established

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)	ATE (mg/kg)
sodium alkylbenzenesulphonate		No data available				Not established
sodium silicate		No data available				Not established
tetrasodium ethylene diamine tetraacetate	LD ₅₀	> 5000	Rabbit	Method not given		Not established
2-(2-butoxyethoxy)ethanol	LD ₅₀	2764	Rabbit	Method not given		Not established
sodium cumenesulphonate	LD ₅₀	> 2000	Rabbit	Method not given		Not established
sodium hydroxide	LD ₅₀	1350	Rabbit	Method not given		Not established

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value	Species	Method	Exposure
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		(mg/l)			time (h)
sodium alkylbenzenesulphonate		No data available			
sodium silicate		No data available			
tetrasodium ethylene diamine tetraacetate	LC ₅₀	≥ 1-5 (dust)	Rat	OECD 403 (EU B.2)	6
2-(2-butoxyethoxy)ethanol		No data available			
sodium cumenesulphonate	LC ₅₀	> 5 (mist) No mortality observed	Rat	Read across	3.87
sodium hydroxide		No data available			

Acute inhalative toxicity, continued

Ingredient(s)	ATE - inhalation, dust (mg/l)	ATE - inhalation, mist (mg/l)	ATE - inhalation, vapour (mg/l)	ATE - inhalation, gas (mg/l)
sodium alkylbenzenesulphonate	Not established	Not established	Not established	Not established
sodium silicate	Not established	Not established	Not established	Not established
tetrasodium ethylene diamine tetraacetate	Not established	19	Not established	Not established
2-(2-butoxyethoxy)ethanol	Not established	Not established	Not established	Not established
sodium cumenesulphonate	Not established	Not established	Not established	Not established
sodium hydroxide	Not established	Not established	Not established	Not established

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium alkylbenzenesulphonate	No data available			
sodium silicate	Corrosive		Method not given	
tetrasodium ethylene diamine tetraacetate	Not irritant	Rabbit	OECD 404 (EU B.4)	
2-(2-butoxyethoxy)ethanol	Not irritant	Rabbit	Method not given	
sodium cumenesulphonate	Not 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
sodium alkylbenzenesulphonate	No data available			
sodium silicate	Corrosive		Method not given	
tetrasodium ethylene diamine tetraacetate	Severe damage		Method not given	
2-(2-butoxyethoxy)ethanol	Irritant	Rabbit	Method not given	
sodium cumenesulphonate	Irritant	Rabbit	OECD 405 (EU B.5)	
sodium hydroxide	Corrosive	Rabbit	Method not given	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium alkylbenzenesulphonate	No data available			
sodium silicate	No data available			
tetrasodium ethylene diamine tetraacetate	No data available			
2-(2-butoxyethoxy)ethanol	No data available			
sodium cumenesulphonate	No data available			
sodium hydroxide	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
sodium alkylbenzenesulphonate	No data available			
sodium silicate	No data available			
tetrasodium ethylene diamine tetraacetate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
2-(2-butoxyethoxy)ethanol	Not sensitising	Guinea pig	Method not given	
sodium cumenesulphonate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
sodium hydroxide	Not sensitising		Human repeated patch test	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
sodium alkylbenzenesulphonate	No data available			
sodium silicate	No data available			

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tetrasodium ethylene diamine tetraacetate	No data available			
2-(2-butoxyethoxy)ethanol	No data available			
sodium cumenesulphonate	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)
sodium alkylbenzenesulphonate	No data available		No data available	
sodium silicate	No data available		No data available	
tetrasodium ethylene diamine tetraacetate	No evidence for mutagenicity, negative test results	Method not given	No evidence of genotoxicity, negative test results	Method not given
2-(2-butoxyethoxy)ethanol	No evidence of genotoxicity, negative test results	Method not given	No evidence of genotoxicity, negative test results	Method not given
sodium cumenesulphonate	No evidence for mutagenicity, negative test results	Method not given	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12)
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
sodium alkylbenzenesulphonate	No data available
sodium silicate	No data available
tetrasodium ethylene diamine tetraacetate	No evidence for carcinogenicity, weight-of-evidence
2-(2-butoxyethoxy)ethanol	No data available
sodium cumenesulphonate	No evidence for carcinogenicity, negative test results
sodium hydroxide	No evidence for carcinogenicity, weight-of-evidence

Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
sodium alkylbenzenesulphonate			No data available				
sodium silicate			No data available				
tetrasodium ethylene diamine tetraacetate			No data available				No evidence for reproductive toxicity
2-(2-butoxyethoxy)ethanol			No data available				No evidence for developmental toxicity No evidence for reproductive toxicity
sodium cumenesulphonate	NOAEL	Teratogenic effects	> 936	Rat	Non guideline test		No known significant effects or critical hazards
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
sodium alkylbenzenesulphonate		No data available				
sodium silicate	NOAEL	> 227 - 237	Rat	Method not given		
tetrasodium ethylene diamine tetraacetate		No data available				
2-(2-butoxyethoxy)ethanol		No data available				
sodium cumenesulphonate	NOAEL	763 - 3534	Rat	OECD 408 (EU B.26)		No effects observed
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
sodium alkylbenzenesulphonate		No data available				
sodium silicate		No data available				
tetrasodium ethylene diamine tetraacetate		No data				

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		available				
2-(2-butoxyethoxy)ethanol		No data available				
sodium cumenesulphonate		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
sodium alkylbenzenesulphonate		No data available				
sodium silicate		No data available				
tetrasodium ethylene diamine tetraacetate		No data available				
2-(2-butoxyethoxy)ethanol		No data available				
sodium cumenesulphonate		No data available				
sodium hydroxide		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
sodium alkylbenzenesulphonate			No data available					
sodium silicate			No data available					
tetrasodium ethylene diamine tetraacetate			No data available					
2-(2-butoxyethoxy)ethanol			No data available					
sodium cumenesulphonate			No data available					
sodium hydroxide			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
sodium alkylbenzenesulphonate	No data available
sodium silicate	No data available
tetrasodium ethylene diamine tetraacetate	No data available
2-(2-butoxyethoxy)ethanol	No data available
sodium cumenesulphonate	Not applicable
sodium hydroxide	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
sodium alkylbenzenesulphonate	No data available
sodium silicate	No data available
tetrasodium ethylene diamine tetraacetate	Respiratory tract
2-(2-butoxyethoxy)ethanol	No data available
sodium cumenesulphonate	Not applicable
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.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Endocrine disrupting properties - Human data, if available:

11.2.2 Other information

No other relevant information available.

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)
sodium alkylbenzenesulphonate	LC ₅₀	No data available			
sodium silicate	LC ₅₀	210	<i>Brachydanio rerio</i>	Method not given	96
tetrasodium ethylene diamine tetraacetate	LC ₅₀	> 100	<i>Lepomis macrochirus</i>	OPP 72-1, static (EPA)	96
2-(2-butoxyethoxy)ethanol	LC ₅₀	> 100	<i>Fish</i>	Method not given	
sodium cumenesulphonate	LC ₅₀	> 1000	<i>Fish</i>	EPA-OPPTS 850.1075	96
sodium hydroxide	LC ₅₀	35	<i>Various species</i>	Method not given	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium alkylbenzenesulphonate	EC ₅₀	1.62	<i>Daphnia magna Straus</i>		48
sodium silicate	EC ₅₀	1700	<i>Daphnia</i>	Method not given	48
tetrasodium ethylene diamine tetraacetate	EC ₅₀	140	<i>Daphnia magna Straus</i>	DIN 38412, Part 11	48
2-(2-butoxyethoxy)ethanol	EC ₅₀	> 100	<i>Daphnia magna Straus</i>	DIN 38412, Part 11	48
sodium cumenesulphonate	EC ₅₀	> 1000	<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)
sodium alkylbenzenesulphonate	EC ₅₀	29	<i>Selenastrum capricornutum</i>		96
sodium silicate	EC ₅₀	207	<i>Chlorella pyrenoidosa</i>	Method not given	72
tetrasodium ethylene diamine tetraacetate	EC ₅₀	> 100	<i>Scenedesmus obliquus</i>	88/302/EEC, Part C, static	72
2-(2-butoxyethoxy)ethanol	EC ₅₀	> 100	<i>Desmodesmus subspicatus</i>	Method not given	
sodium cumenesulphonate	E ₅₀ C ₅₀	> 230	<i>Not specified</i>	EPA OPPTS 850.5400	96
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)
sodium alkylbenzenesulphonate		No data available			
sodium silicate		No data available			
tetrasodium ethylene diamine tetraacetate		No data available			
2-(2-butoxyethoxy)ethanol		No data available			
sodium cumenesulphonate		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
sodium alkylbenzenesulphonate		No data available			
sodium silicate	EC ₅₀	> 100	<i>Activated sludge</i>	Method not given	3 hour(s)

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tetrasodium ethylene diamine tetraacetate	EC ₂₀	> 500	Activated sludge	OECD 209	0.5 hour(s)
2-(2-butoxyethoxy)ethanol	EC ₁₀	1170	<i>Pseudomonas putida</i>	Method not given	16 hour(s)
sodium cumenesulphonate	E _r C ₅₀	> 1000	<i>Bacteria</i>	OECD 209	3 hour(s)
sodium hydroxide		No data available			

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sodium alkylbenzenesulphonate		No data available				
sodium silicate		No data available				
tetrasodium ethylene diamine tetraacetate	NOEC	> 25.7	<i>Brachydanio rerio</i>	OECD 210	35 day(s)	
2-(2-butoxyethoxy)ethanol		No data available				
sodium cumenesulphonate		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
sodium alkylbenzenesulphonate		No data available				
sodium silicate		No data available				
tetrasodium ethylene diamine tetraacetate	NOEC	25	<i>Daphnia magna</i>	OECD 211	21 day(s)	
2-(2-butoxyethoxy)ethanol		No data available				
sodium cumenesulphonate		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 alkylbenzenesulphonate		No data available				
sodium silicate		No data available				
tetrasodium ethylene diamine tetraacetate		No data available				
2-(2-butoxyethoxy)ethanol		No data available				
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
tetrasodium ethylene diamine tetraacetate	LD ₅₀	156	<i>Eisenia fetida</i>	OECD 207	14	
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
tetrasodium ethylene diamine tetraacetate	NOEC	0.25 - 1.25			21	
sodium hydroxide		No data available				

Terrestrial toxicity - birds, if available:

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

Terrestrial toxicity - soil bacteria, if available:

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

Abiotic degradation - other processes, if available:

Ingredient(s)	Type	Half-life time	Method	Evaluation	Remark
tetrasodium ethylene diamine tetraacetate		No data available			
sodium hydroxide		No data available			

Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT ₅₀	Method	Evaluation
sodium alkylbenzenesulphonate				OECD 301B	Readily biodegradable
sodium silicate					Not applicable (inorganic substance)
tetrasodium ethylene diamine tetraacetate				Weight of evidence	Not readily biodegradable. Inherently biodegradable.
2-(2-butoxyethoxy)ethanol	Activated sludge, aerobe	COD removal	95% in 28 day(s)	OECD 301C	Readily biodegradable
sodium cumenesulphonate		CO ₂ production	103 - 109% in 28 day(s)	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
tetrasodium ethylene diamine tetraacetate					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
tetrasodium ethylene diamine tetraacetate					No data available
sodium hydroxide					No data available

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

Ingredient(s)	Value	Method	Evaluation	Remark
sodium alkylbenzenesulphonate	No data available			
sodium silicate	No data available			

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tetrasodium ethylene diamine tetraacetate	-3.86	Method not given	No bioaccumulation expected	
2-(2-butoxyethoxy)ethanol	0.56	Method not given	No bioaccumulation expected	
sodium cumenesulphonate	-1.1	Method not given	No bioaccumulation expected	
sodium hydroxide	No data available		Not relevant, does not bioaccumulate	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
sodium alkylbenzenesulphonate	No data available				
sodium silicate	No data available				
tetrasodium ethylene diamine tetraacetate	1.8	<i>Lepomis macrochirus</i>	OECD 305	Low potential for bioaccumulation	
2-(2-butoxyethoxy)ethanol	1.4		QSAR	Low potential for bioaccumulation	
sodium cumenesulphonate	No data available				
sodium hydroxide	No data available				

12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log K _{oc}	Desorption coefficient Log K _{oc} (des)	Method	Soil/sediment type	Evaluation
sodium alkylbenzenesulphonate	No data available				
sodium silicate	No data available				
tetrasodium ethylene diamine tetraacetate	No data available				Adsorption to solid soil phase is not expected
2-(2-butoxyethoxy)ethanol	No data available				Potential for mobility in soil, soluble in water
sodium cumenesulphonate	No data available				
sodium hydroxide	No data available				Mobile in soil

12.5 Results of PBT and vPvB assessment

Substances that fulfill the criteria for PBT/vPvB, if any, are listed in section 3.

12.6 Endocrine disrupting properties

Endocrine disrupting properties - Environmental effects, if available:

12.7 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.

20 01 15* - alkalines.

European Waste Catalogue:

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 (ADR/RID), Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)

14.1 UN number: 1824

14.2 UN proper shipping name:

Fatsolve VF21

Sodium hydroxide solution

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

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:****ADR**

Classification code: C5

Tunnel restriction code: E

Hazard identification number: 80

IMO/IMDG

EmS: F-A, S-B

The product has been classified, labelled and packaged in accordance with the requirements of ADR 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 :**

- Regulation (EC) 1907/2006 - REACH (UK amended)
- Regulation (EC) 1272/2008 - CLP (UK amended)
- Regulation (EC) 648/2004 - Detergents regulation (UK amended)
- Delegated Regulation (EU) 2017/2100 and Regulation (EU) 2018/605 (UK amended)
- Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)
- International Maritime Dangerous Goods (IMDG) Code

Authorisations or restrictions (Regulation (EC) No 1907/2006, Title VII respectively Title VIII): Not applicable.

Ingredients according to Detergents Regulation

anionic surfactants

5 - 15 %

EDTA and salts thereof, phosphates

< 5 %

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) 648/2004 on detergents (UK amended). Data to support this assertion are held at the disposal of the competent authorities of the UK and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Comah - classification: Not classified

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out on the mixture

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

SDS code: MS1001357

Version: 06.0

Revision: 2022-11-04

Reason for revision:

Overall design adjusted in accordance with Amendment 2020/878, Annex II of Regulation (EC) No 1907/2006. This data sheet contains changes from the previous version in section(s): 2, 3, 6, 7, 8, 9, 11, 12, 16

Classification procedure

The classification of the mixture is in general based on calculation methods using substance data, as required by Regulation (EC) No 1272/2008. If for certain classifications data on the mixture is available or for example bridging principles or weight of evidence can be used for classification, this will be indicated in the relevant sections of the Safety Data Sheet. See section 9 for physical chemical properties, section 11 for toxicological information and section 12 for ecological information.

Full text of the H and EUH phrases mentioned in section 3:

- H290 - May be corrosive to metals.
- H302 - Harmful if swallowed.
- H314 - Causes severe skin burns and eye damage.
- H315 - Causes skin irritation.

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- H318 - Causes serious eye damage.
- H319 - Causes serious eye irritation.
- H332 - Harmful if inhaled.
- H335 - May cause respiratory irritation.
- H373 - May cause damage to organs through prolonged or repeated exposure.
- H412 - Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms:

- AISE - The international Association for Soaps, Detergents and Maintenance Products
- ATE - Acute Toxicity Estimate
- DNEL - Derived No Effect Limit
- EC50 - effective concentration, 50%
- ERC - Environmental release categories
- EUH - CLP Specific hazard statement
- LC50 - Lethal Concentration, 50% / Median Lethal Concentration
- LCS - Life cycle stage
- 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
- PBT - Persistent, Bioaccumulative and Toxic
- PNEC - Predicted No Effect Concentration
- PROC - Process categories
- REACH number - REACH registration number, without supplier specific part
- vPvB - very Persistent and very Bioaccumulative

End of Safety Data Sheet