

Shield Cleaner Disinfectant Concentrate

Revision: 2024-08-05

Version: 02.0

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

1.1 Product identifier

Trade name: Shield Cleaner Disinfectant Concentrate

UFI: SV43-S0EK-S002-SJSA

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

Product use: Restroom/bathroom cleaner.
for general surface disinfection
Uses advised against: Uses other than those identified are not recommended.

SWED - Sector-specific worker exposure description :

AISE_SWED_PW_1_1
AISE_SWED_PW_8a_1
AISE_SWED_PW_11_1
AISE_SWED_PW_19_1

1.3 Details of the supplier of the safety data sheet

Diversey Europe Operations BV, De Corridor 4, 3621ZB Breukelen [Maarssebroeksedijk 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@solenis.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 irritation, Category 2 (H315)
Serious eye damage, Category 1 (H318)
Chronic aquatic toxicity, Category 3 (H412)

2.2 Label elements



Signal word: Danger.

Contains alkyl alcohol ethoxylate (C9-11 Pareth-5-10), n-alkyl dimethyl benzyl ammonium chloride (Benzalkonium Chloride), tetrasodium ethylene diamine tetraacetate (Tetrasodium EDTA)

Hazard statements:

H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H412 - Harmful to aquatic life with long lasting effects.

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.

Shield Cleaner Disinfectant Concentrate

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
alkyl alcohol ethoxylate	[4]	68439-46-3	[4]	Acute toxicity - Oral, Category 4 (H302) Serious eye damage, Category 1 (H318)		3-10
tetrasodium ethylene diamine tetraacetate	200-573-9	64-02-8	01-211948676 2-27	Acute toxicity - Oral, Category 4 (H302) Acute toxicity - Inhalation, Category 4 (H332) Specific target organ toxicity - Repeated exposure, Category 2 (H373) Serious eye damage, Category 1 (H318)		1-3
n-alkyl dimethyl benzyl ammonium chloride	270-325-2	68424-85-1	[6]	Skin corrosion, Category 1B (H314) Acute toxicity - Oral, Category 4 (H302) Acute toxicity - Dermal, Category 4 (H312) Serious eye damage, Category 1 (H318) Acute aquatic toxicity, Category 1 M=10 (H400) Chronic aquatic toxicity, Category 1 M=1 (H410)		1-3

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

ATE, if available, are listed in section 11.

[4] Exempted: polymer. See Article 2(9) of Regulation (EC) No 1907/2006.

[6] Exempted: biocidal active. See Article 15(2) of Regulation (EC) No 1907/2006.

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**

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 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 suitable gloves. Wear eye/face protection.

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.

Shield Cleaner Disinfectant Concentrate

6.3 Methods and material for containment and cleaning up

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. Keep from freezing. 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:

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
alkyl alcohol ethoxylate	-	-	-	-
tetrasodium ethylene diamine tetraacetate	-	-	-	25
n-alkyl dimethyl benzyl ammonium chloride	-	-	-	3.4

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)
alkyl alcohol ethoxylate	-	-	-	-
tetrasodium ethylene diamine tetraacetate	-	-	-	-
n-alkyl dimethyl benzyl ammonium chloride	-	-	-	5.7

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)
alkyl alcohol ethoxylate	-	-	-	-
tetrasodium ethylene diamine tetraacetate	-	-	-	-
n-alkyl dimethyl benzyl ammonium chloride	-	-	-	3.4

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
alkyl alcohol ethoxylate	-	-	-	-
tetrasodium ethylene diamine tetraacetate	3	3	1.5	1.5
n-alkyl dimethyl benzyl ammonium chloride	-	-	-	3.96

Shield Cleaner Disinfectant Concentrate

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
alkyl alcohol ethoxylate	-	-	-	-
tetrasodium ethylene diamine tetraacetate	1.2	1.2	0.6	-
n-alkyl dimethyl benzyl ammonium chloride	-	-	-	1.64

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)
alkyl alcohol ethoxylate	-	-	-	-
tetrasodium ethylene diamine tetraacetate	2.2	0.22	1.2	43
n-alkyl dimethyl benzyl ammonium chloride	0.0009	0.00096	0.00016	0.4

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m ³)
alkyl alcohol ethoxylate	-	-	-	-
tetrasodium ethylene diamine tetraacetate	-	-	0.72	-
n-alkyl dimethyl benzyl ammonium chloride	12.27	13.09	7	-

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:** 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
Manual transfer and dilution	AISE_SWED_PW_8a_1	PW	PROC 8a	60	ERC8a
Manual transfer and dilution	AISE_SWED_PW_1_1	PW	PROC 1	60	ERC8a

Personal protective equipment

Eye / face protection:

Safety glasses or goggles (EN 16321 / 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:

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:

Recommended maximum concentration (% w/w): 10

Appropriate engineering controls: Provide a good standard of general ventilation.

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

REACH use scenarios considered for the diluted product:

	SWED	LCS	PROC	Duration (min)	ERC
Spray application	AISE_SWED_PW_11_1	PW	PROC 11	60	ERC8a

Shield Cleaner Disinfectant Concentrate

Manual application	AISE_SWED_PW_19_1	PW	PROC 19	480	ERC8a
--------------------	-------------------	----	---------	-----	-------

Personal protective equipment**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:

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:

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

Method / remark**Physical state:** Liquid**Colour:** Clear , Blue**Odour:** Product specific**Odour threshold:** Not applicable**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

Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
alkyl alcohol ethoxylate	> 232.2	Method not given	
tetrasodium ethylene diamine tetraacetate	No data available	Non-experimental data	
n-alkyl dimethyl benzyl ammonium chloride	> 107	Method not given	

Method / remark**Flammability (solid, gas):** Not applicable to liquids**Flammability (liquid):** Not flammable.**Flash point (°C):** Not applicable.**Sustained combustion:** Not applicable.

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

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

See substance data

Substance data, flammability or explosive limits, if available:

Ingredient(s)	Lower limit (% vol)	Upper limit (% vol)
n-alkyl dimethyl benzyl ammonium chloride	-	-

Method / remark**Autoignition temperature:** Not determined**Decomposition temperature:** Not applicable.**pH:** ≈ 10 (neat)

ISO 4316

Kinematic viscosity: Not determined**Solubility in / Miscibility with water:** Fully miscible

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
alkyl alcohol ethoxylate	100 Soluble	Method not given	
tetrasodium ethylene diamine tetraacetate	500	Method not given	20
n-alkyl dimethyl benzyl ammonium chloride	Soluble	Method not given	

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)
alkyl alcohol ethoxylate	< 10	Method not given	37.8
tetrasodium ethylene diamine tetraacetate	0.0000000002	Read across	25
n-alkyl dimethyl benzyl ammonium chloride	2300	Method not given	20

Shield Cleaner Disinfectant Concentrate

Relative density: ≈ 1.07 (20 °C)
Relative vapour density: No data available.
Particle characteristics: No data available.

Method / remark
 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: Not corrosive

Weight of evidence

9.2.2 Other safety characteristics

No other relevant information available.

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

None known under normal use conditions.

10.6 Hazardous decomposition products

None known under normal storage and use conditions.

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**Mixture data: .**Relevant calculated ATE(s):**

ATE - Oral (mg/kg): >2000
 ATE - Dermal (mg/kg): >2000
 ATE - Inhalatory, mists (mg/l): >5

Eye irritation and corrosivity

Result: Eye damage 1 **Method:** OECD 438, Histology

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 Oral (mg/kg)
alkyl alcohol ethoxylate	LD ₅₀	1400	Rat	Weight of evidence		1400
tetrasodium ethylene diamine tetraacetate	LD ₅₀	1780	Rat	OECD 401 (EU B.1)		1780
n-alkyl dimethyl benzyl ammonium chloride	LD ₅₀	304.5	Rat			304.5

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)	ATE Dermal (mg/kg)
alkyl alcohol ethoxylate	LD ₅₀	2000 - 5000	Rat	Weight of evidence		Not established
tetrasodium ethylene diamine tetraacetate	LD ₅₀	> 5000	Rabbit	Method not given		Not established
n-alkyl dimethyl benzyl ammonium chloride	LD ₅₀	3412	Rabbit	Method not given		3412

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
---------------	----------	--------------	---------	--------	-------------------

Shield Cleaner Disinfectant Concentrate

alkyl alcohol ethoxylate		No data available			
tetrasodium ethylene diamine tetraacetate	LC ₅₀	≥ 1-5 (dust)	Rat	OECD 403 (EU B.2)	6
n-alkyl dimethyl benzyl ammonium chloride		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)
alkyl alcohol ethoxylate	Not established	Not established	Not established	Not established
tetrasodium ethylene diamine tetraacetate	Not established	30	Not established	Not established
n-alkyl dimethyl benzyl ammonium chloride	Not established	Not established	Not established	Not established

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
alkyl alcohol ethoxylate	Not irritant		Weight of evidence	
tetrasodium ethylene diamine tetraacetate	Not irritant	Rabbit	OECD 404 (EU B.4)	
n-alkyl dimethyl benzyl ammonium chloride	Corrosive	Rabbit	Method not given	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
alkyl alcohol ethoxylate	Severe damage	Rabbit	Weight of evidence OECD 437	
tetrasodium ethylene diamine tetraacetate	Severe damage		Method not given	
n-alkyl dimethyl benzyl ammonium chloride	Severe damage		Method not given	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
alkyl alcohol ethoxylate	No data available			
tetrasodium ethylene diamine tetraacetate	No data available			
n-alkyl dimethyl benzyl ammonium chloride	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
alkyl alcohol ethoxylate	Not sensitising		Weight of evidence	
tetrasodium ethylene diamine tetraacetate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
n-alkyl dimethyl benzyl ammonium chloride	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
alkyl alcohol ethoxylate	No data available			
tetrasodium ethylene diamine tetraacetate	No data available			
n-alkyl dimethyl benzyl ammonium chloride	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)
alkyl alcohol ethoxylate	No evidence for mutagenicity, negative test results	OECD 473	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
n-alkyl dimethyl benzyl ammonium chloride	No evidence of genotoxicity, negative test results	OECD 471 (EU B.12/13) OECD 476 OECD 473	No evidence of genotoxicity, negative test results	OECD 474 (EU B.12)

Carcinogenicity

Ingredient(s)	Effect
alkyl alcohol ethoxylate	No evidence for carcinogenicity, negative test results
tetrasodium ethylene diamine tetraacetate	No evidence for carcinogenicity, weight-of-evidence
n-alkyl dimethyl benzyl ammonium chloride	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
alkyl alcohol ethoxylate	NOAEL		> 250	Rat	Not known		No effects on fertility No

Shield Cleaner Disinfectant Concentrate

							developmental toxicity
tetrasodium ethylene diamine tetraacetate			No data available				No evidence for reproductive toxicity
n-alkyl dimethyl benzyl ammonium chloride			No data available				

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
alkyl alcohol ethoxylate	NOAEL	80 - 400		OECD 408 (EU B.26)		
tetrasodium ethylene diamine tetraacetate		No data available				
n-alkyl dimethyl benzyl ammonium chloride		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
alkyl alcohol ethoxylate	NOAEL	80		OECD 411 (EU B.28)	90	
tetrasodium ethylene diamine tetraacetate		No data available				
n-alkyl dimethyl benzyl ammonium chloride		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
alkyl alcohol ethoxylate		No data available				
tetrasodium ethylene diamine tetraacetate		No data available				
n-alkyl dimethyl benzyl ammonium chloride		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
alkyl alcohol ethoxylate			No data available					
tetrasodium ethylene diamine tetraacetate			No data available					
n-alkyl dimethyl benzyl ammonium chloride			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
alkyl alcohol ethoxylate	No data available
tetrasodium ethylene diamine tetraacetate	No data available
n-alkyl dimethyl benzyl ammonium chloride	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
alkyl alcohol ethoxylate	No data available
tetrasodium ethylene diamine tetraacetate	Respiratory tract
n-alkyl dimethyl benzyl ammonium chloride	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)
alkyl alcohol ethoxylate	LC ₅₀	5 - 7	Fish	92/69/EEC, C1, semi-static	96
tetrasodium ethylene diamine tetraacetate	LC ₅₀	> 100	<i>Lepomis macrochirus</i>	OPP 72-1, static (EPA)	96
n-alkyl dimethyl benzyl ammonium chloride	LC ₅₀	0.515	Fish	Method not given	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
alkyl alcohol ethoxylate	EC ₅₀	5.3	<i>Daphnia</i>	92/69/EEC	48
tetrasodium ethylene diamine tetraacetate	EC ₅₀	140	<i>Daphnia magna</i> Straus	DIN 38412, Part 11	48
n-alkyl dimethyl benzyl ammonium chloride	EC ₅₀	0.016	<i>Daphnia</i>	Method not given	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
alkyl alcohol ethoxylate	EC ₅₀	1.4 - 47	Not specified	92/69/EEC	72
tetrasodium ethylene diamine tetraacetate	EC ₅₀	> 100	<i>Scenedesmus obliquus</i>	88/302/EEC, Part C, static	72
n-alkyl dimethyl benzyl ammonium chloride	EC ₅₀	0.02	<i>Selenastrum capricornutum</i>	OECD 201 (EU C.3)	72

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
alkyl alcohol ethoxylate		No data available			
tetrasodium ethylene diamine tetraacetate		No data available			
n-alkyl dimethyl benzyl ammonium chloride		No data available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
alkyl alcohol ethoxylate	EC ₅₀	> 140	Bacteria	DIN EN ISO 8192-OECD 209-88/302/EEC	3 hour(s)
tetrasodium ethylene diamine tetraacetate	EC ₂₀	> 500	Activated sludge	OECD 209	0.5 hour(s)
n-alkyl dimethyl benzyl ammonium chloride	EC ₂₀	5	Activated sludge	OECD 209	0.5 hour(s)

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
alkyl alcohol ethoxylate	EC ₁₀	8.983	Not specified	Method not given	21 day(s)	
tetrasodium ethylene diamine tetraacetate	NOEC	> 25.7	<i>Brachydanio rerio</i>	OECD 210	35 day(s)	
n-alkyl dimethyl benzyl ammonium chloride		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
alkyl alcohol ethoxylate	EC ₁₀	2.579	<i>Daphnia</i> sp.	Method not given	21 day(s)	
tetrasodium ethylene diamine tetraacetate	NOEC	25	<i>Daphnia magna</i>	OECD 211	21 day(s)	

Shield Cleaner Disinfectant Concentrate

n-alkyl dimethyl benzyl ammonium chloride	NOEC	0.025	<i>Daphnia magna</i>	OECD 211	21 day(s)	
---	------	-------	----------------------	----------	-----------	--

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
alkyl alcohol ethoxylate		No data available				
tetrasodium ethylene diamine tetraacetate		No data available				
n-alkyl dimethyl benzyl ammonium chloride		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	
n-alkyl dimethyl benzyl ammonium chloride		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	
n-alkyl dimethyl benzyl ammonium chloride		No data available				

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
n-alkyl dimethyl benzyl ammonium chloride		No data available				

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
n-alkyl dimethyl benzyl ammonium chloride		No data available				

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
n-alkyl dimethyl benzyl ammonium chloride		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			
n-alkyl dimethyl benzyl ammonium chloride	No data available			

Abiotic degradation - hydrolysis, if available:

Ingredient(s)	Half-life time in fresh water	Method	Evaluation	Remark
tetrasodium ethylene diamine tetraacetate	No data available			
n-alkyl dimethyl benzyl ammonium chloride	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			
n-alkyl dimethyl benzyl ammonium chloride		No data available			

Biodegradation

Ready biodegradability - aerobic conditions

Shield Cleaner Disinfectant Concentrate

Ingredient(s)	Inoculum	Analytical method	DT ₅₀	Method	Evaluation
alkyl alcohol ethoxylate				OECD 301B	Readily biodegradable
tetrasodium ethylene diamine tetraacetate				Weight of evidence	Not readily biodegradable.
n-alkyl dimethyl benzyl ammonium chloride		Oxygen depletion	> 60%	Read across	Readily biodegradable

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
n-alkyl dimethyl benzyl ammonium chloride					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
n-alkyl dimethyl benzyl ammonium chloride					No data available

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

Ingredient(s)	Value	Method	Evaluation	Remark
alkyl alcohol ethoxylate	3.11 - 4.19	Method not given	High potential for bioaccumulation	
tetrasodium ethylene diamine tetraacetate	-3.86	Method not given	No bioaccumulation expected	
n-alkyl dimethyl benzyl ammonium chloride	0.004	Method not given	No bioaccumulation expected	at 20 °C

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
alkyl alcohol ethoxylate	< 500		Method not given	High potential for bioaccumulation	
tetrasodium ethylene diamine tetraacetate	1.8	<i>Lepomis macrochirus</i>	OECD 305	Low potential for bioaccumulation	
n-alkyl dimethyl benzyl ammonium chloride	79	<i>Lepomis macrochirus</i>		Low potential for bioaccumulation	

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
alkyl alcohol ethoxylate	No data available				Potential for mobility in soil, soluble in water
tetrasodium ethylene diamine tetraacetate	No data available				Adsorption to solid soil phase is not expected
n-alkyl dimethyl benzyl ammonium chloride	No data available				

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:

European Waste Catalogue:

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 29* - detergents containing dangerous substances.

Empty packaging

Recommendation:

Suitable cleaning agents:

Dispose of observing national or local regulations.
Water, if necessary with cleaning agent.

SECTION 14: Transport information

Shield Cleaner Disinfectant Concentrate

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

- 14.1 UN number or ID 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 Maritime transport in bulk according to IMO instruments: Non-dangerous goods

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)
- Biocidal Products Regulations 2001 (SI 2001/880)
- 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

non-ionic surfactants, phosphates	5 - 15 %
EDTA and salts thereof	< 5 %
perfumes , Hexyl Cinnamal, Limonene, Citronellol, Benzyl Alcohol, disinfectants	

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: MS1003506

Version: 02.0

Revision: 2024-08-05

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, 4, 6, 7, 8, 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.

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

Shield Cleaner Disinfectant Concentrate

- 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
- H302 - Harmful if swallowed.
- H312 - Harmful in contact with skin.
- H314 - Causes severe skin burns and eye damage.
- H318 - Causes serious eye damage.
- H332 - Harmful if inhaled.
- H373 - May cause damage to organs through prolonged or repeated exposure.
- H400 - Very toxic to aquatic life.
- H410 - Very toxic to aquatic life with long lasting effects.

End of Safety Data Sheet