Conforms to EU Regulation 1907/2006/EC as amended.

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

1.1 Product identifier

Trade name : DOMESTOS PROFESSIONAL ORIGINAL

Unique Formula Identifier (UFI) : RUM1-E061-W00V-9GEY

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

Use of the Substance/Mixture : Restroom/bathroom cleaner
Hard surface cleaner
Detergent
For professional use only

Recommended restrictions on use : Uses other than those identified are not recommended

Sector-specific worker exposure

AISE_SWED_PW_19_2

1.3 Details of the supplier of the safety data sheet	**1.4 Emergency telephone**
Unilever Europe BV (UPro), Rodezand 90, 3011 AN Rotterdam, NL **E-mail address of person responsible for the SDS:** HazardCommunication@solenis.com **Product Information** 900 533 856 es.pedidos@solenis.com	Seek medical advice (show the label or safety data sheet where possible), Servicio de Información Toxicológica (Instituto Nacional de Toxicologa y Ciencias Forenses), Tel: +34 915 620 420

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Corrosive to Metals, Category 1	H290: May be corrosive to metals.
Skin corrosion, Category 1	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Short-term (acute) aquatic hazard, Category 1	H400: Very toxic to aquatic life.
Long-term (chronic) aquatic hazard, Category 2	H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labeling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal Word : Danger

Hazard Statements :

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Statements :

Prevention:

P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P260	Do not breathe vapors.

Response:

P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

Hazardous ingredients which must be listed on the label:

sodium hypochlorite
N,N-dimethyltetradecylamine N-oxide
dodecyldimethylamine oxide
sodium hydroxide

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
sodium hypochlorite	7681-52-9 231-668-3 01-2119488154-34-xxxx	Met. Corr. 1; H290 Skin Corr. 1B; H314 Eye Dam. 1; H318 STOT SE 3; H335 (Respiratory system) Aquatic Acute 1; H400 Aquatic Chronic 1; H410 EUH031 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1	>= 3 - < 5

		specific concentration limit EUH031 >= 5 %	
N,N-dimethyltetradecylamine N-oxide	3332-27-2 222-059-3	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 2; H411 --- M-Factor (Acute aquatic toxicity): 1	>= 1 - < 2,5
dodecyldimethylamine oxide	1643-20-5 216-700-6	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 2; H411 --- M-Factor (Acute aquatic toxicity): 1 --- Acute toxicity estimate Acute oral toxicity: 2.000 mg/kg	>= 1 - < 2,5
sodium hydroxide	1310-73-2 215-185-5 01-2119457892-27-xxxx	Met. Corr. 1; H290 Skin Corr. 1A; H314 Eye Dam. 1; H318 --- specific concentration limit Skin Corr. 1A; H314 >= 5 % Skin Corr. 1B; H314 2 - < 5 % Skin Irrit. 2; H315 0,5 - < 2 % Eye Irrit. 2; H319 0,5 - < 2 %	>= 1 - < 2
hexadecyldimethylamine N-oxide	7128-91-8	Skin Irrit. 2; H315	>= 0,25 - < 0,5

	230-429-0	Eye Irrit. 2; H319 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1	
Sulfonic acids, C14-17-sec-alkane, sodium salts	97489-15-1 307-055-2	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 3; H412 M-Factor (Acute aquatic toxicity): 1	>= 0,1 - < 0,25

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : Move to fresh air.
If breathed in, move person into fresh air.
Keep patient warm and at rest.
If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
If skin irritation persists, call a physician.
If on clothes, remove clothes.
If on skin, rinse well with water.
Wash contaminated clothing before re-use.

In case of eye contact : Small amounts splashed into eyes can cause irreversible

tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.
Clean mouth with water and drink afterwards plenty of water.
Take victim immediately to hospital.
Get medical attention immediately.
Do NOT induce vomiting.
Rinse mouth with water.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Risks : Causes serious eye damage.
Causes severe burns.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water spray
Foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Advice for firefighters

Special protective equipment for fire-fighters	:	In the event of fire, wear self-contained breathing apparatus.
Specific extinguishing methods	:	Product is compatible with standard fire-fighting agents.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Use personal protective equipment. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Comply with all applicable federal, state, and local regulations.

6.2 Environmental precautions

Environmental precautions	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities. Should not reach sewage water or drainage ditch undiluted or unneutraised

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	:	Neutralize with acid. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.
For further information see Section 8 and Section 13 of the safety data sheet.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	:	To avoid spills during handling keep bottle on a metal tray.

Do not breathe vapors/dust.
When diluting, always add the product to water. Never add water to the product.
Container hazardous when empty.
Avoid contact with skin and eyes.
Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : When using do not smoke. Wash hands before breaks and at the end of workday. When using do not eat or drink. Ensure that eyewash stations and safety showers are close to the workstation location.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Electrical installations / working materials must comply with the technological safety standards. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions.

Further information on storage stability : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No. EC-No.	Value type (Form of exposure)	Control parameters	Basis
sodium hydroxide	1310-73-2	VLA-EC	2 mg/m3	ES VLA

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Routes of exposure	Potential health effects	Value
Sodium hypochlorite	Consumers	Dermal	Long-term local	0,5 %

			effects	
	Workers	Dermal	Long-term local effects	0,5 %
	Consumers	Inhalation	Short-term exposure, Local effects	3,1 mg/kg bw/day
	Consumers	Inhalation	Short-term exposure, Systemic effects	3,1 mg/kg bw/day
	Consumers	Inhalation	Long-term local effects	1,55 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	1,55 mg/kg bw/day
	Workers	Inhalation	Short-term exposure, Local effects	3,1 mg/kg bw/day
	Workers	Inhalation	Short-term exposure, Systemic effects	3,1 mg/kg bw/day
	Workers	Inhalation	Long-term local effects	1,55 mg/kg bw/day
	Workers	Inhalation	Long-term systemic effects	1,55 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	0,26 mg/kg bw/day
Sodium chloride	Consumers	Dermal	Short-term exposure, Systemic effects	126,65 mg/kg bw/day
	Consumers	Dermal	Long-term systemic effects	126,65 mg/kg bw/day
	Workers	Dermal	Short-term exposure, Systemic effects	295,52 mg/kg bw/day
	Workers	Dermal	Long-term systemic effects	295,52 mg/kg bw/day
	Consumers	Inhalation	Short-term exposure, Systemic effects	443,28 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	443,28 mg/kg bw/day
	Workers	Inhalation	Short-term exposure, Systemic effects	2068,62 mg/kg bw/day
	Workers	Inhalation	Long-term systemic effects	2068,62 mg/kg bw/day
	Consumers	Oral	Short-term exposure, Systemic effects	126,65 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	126,65 mg/kg bw/day
N,N-DIMETHYLTETRADECYLAMINE N-OXIDE	Consumers	Dermal	Long-term systemic effects	5,5 mg/kg bw/day
	Workers	Dermal	Long-term systemic effects	11 mg/kg bw/day

	Consumers	Inhalation	Long-term systemic effects	1,53 mg/m3
	Workers	Inhalation	Long-term systemic effects	6,2 mg/m3
	Consumers	Oral	Long-term systemic effects	0,44 mg/kg bw/day
LAURYL DIMETHYLAMINE OXIDE	Consumers	Inhalation	Long-term systemic effects	1,53 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	0,44 mg/kg bw/day
sodium hydroxide	Consumers	Dermal	Short-term exposure, Local effects	2 %
	Workers	Dermal	Short-term exposure, Local effects	2 %
	Consumers	Inhalation	Long-term local effects	1 mg/kg bw/day
	Workers	Inhalation	Long-term local effects	1 mg/kg bw/day
sulphonic acids, C14-17-sec-alkane, sodium salts	Workers	Dermal	Local, short-term	2,8 mg/cm2
	Consumers	Dermal	Long-term systemic effects	3,57 mg/kg
	Workers	Inhalation	Long-term systemic effects	35 mg/m3
	Workers	Dermal	Long-term local effects	2,8 mg/cm2
	Consumers	Dermal	Long-term local effects	2,8 mg/cm2
	Workers	Dermal	Long-term systemic effects	5 mg/kg
	Consumers	Inhalation	Long-term systemic effects	12,4 mg/m3
	Consumers	Oral	Long-term systemic effects	7,1 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
sodium hypochlorite	Fresh water	0,00021 mg/l
	Sea water	0,000042 mg/l
	Intermittent use/release	0,00026 mg/l
	Sewage treatment plant	0,03 mg/l
Sodium chloride	Fresh water	5 mg/l
	Intermittent use/release	19 mg/l
	Sewage treatment plant	500 mg/l

	Soil	4,86 mg/l
N,N-DIMETHYLTETRADECYLAMINE N-OXIDE	Fresh water	0,0335 mg/l
	Sea water	0,00335 mg/l
	Intermittent use/release	0,0335 mg/l
	Sewage treatment plant	24 mg/l
	Fresh water sediment	5,24 mg/kg
	Sea sediment	0,524 mg/kg
	Soil	1,02 mg/kg
	Oral (Secondary Poisoning)	11,1 mg/kg
LAURYL DIMETHYLAMINE OXIDE	Fresh water	0,034 mg/l
	Sea water	0,003 mg/l
	Sewage treatment plant	24 mg/l
	Fresh water sediment	5,24 mg/l
	Sea sediment	0,524 mg/l
	Soil	1,02 mg/l
sulphonic acids, C14-17-sec-alkane, sodium salts	Sewage treatment plant	600 mg/l
	Sea sediment	0,94 mg/kg
	Soil	9,4 mg/kg
	Fresh water sediment	9,4 mg/kg
	Fresh water	0,04 mg/l
	Sea water	0,004 mg/l
	Intermittent use/release	0,06 mg/l

8.2.Exposure controls

Engineering measures

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Appropriate organisational controls: : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.
Should not reach sewage water or drainage ditch undiluted or unneutraised

REACH use scenarios considered for the undiluted product:

	SWED- Sector Specific Worker Exposure Description	LCS	PROC	Duration (min)	ERC
Manual application	AISE_SWED_PW_19_2	PW	PROC19	480 min	ERC8a

Personal protective equipment

Eye protection (EN ISO 16321) : Wear face-shield and protective suit for abnormal processing problems.
Eye wash bottle with pure water
Tightly fitting safety goggles
Wear chemical splash goggles and face shield when there is potential for exposure of the eyes or face to liquid, vapor or mist.
Maintain eye wash station in immediate work area.

Safety glasses or goggles (EN 16321)
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 (EN ISO 374)

Remarks : Wear resistant gloves (consult your safety equipment supplier). Discard gloves that show tears, pinholes, or signs of wear. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

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.

Protective measures : No special requirements under normal use conditions

Skin and body protection (EN 14605) : Wear as appropriate:
Impervious clothing
Chemical resistant apron
Safety shoes
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Wear chemical-resistant clothing and boots in case direct dermal expoure and/or splashes may occur (EN 14605)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : liquid

Color : light yellow

Odor : Chlorine

Odor Threshold : No data available

Melting point/freezing point : No data available

Boiling point/boiling range : No data available

Flammability : Not flammable.

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	Not applicable
Decomposition temperature	:	No data available
pH	:	13,10 Method: ISO 4316
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	190,000 mm2/s
Solubility(ies)		
Water solubility	:	completely soluble, Fully miscible
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Vapor pressure	:	No data available
Relative density	:	No data available
Density	:	1,0530 g/cm3
Relative vapor density	:	No data available

Particle characteristics

Assessment	:	No data available
Particle size	:	No data available
Particle Size Distribution	:	No data available
Dustiness	:	No data available
Shape	:	No data available
Crystallinity	:	No data available
Surface treatment /Coatings	:	No data available

9.2 Other information

Explosives	:	Not explosive
Oxidizing properties	:	Non Oxidative
Self-ignition	:	No data available
Metal corrosion rate	:	Corrosive to Metals
Evaporation rate	:	No data available
Surface tension	:	OECD 115, Not relevant for classification of this product.

SECTION 10: Stability and reactivity

10.1 Reactivity

No reactivity hazards known under normal storage and use conditions

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.
No hazards to be specially mentioned.
Product will not undergo hazardous polymerization.

10.4 Conditions to avoid

Conditions to avoid : No data available

10.5 Incompatible materials

Materials to avoid : Reacts with acids.
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 hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Not classified due to lack of data.

Components:

sodium hypochlorite:

Acute oral toxicity : LD50 (Rat): > 5 g/kg

Acute dermal toxicity : LD50 (Rabbit, male and female): > 20.000 mg/kg

N,N-dimethyltetradecylamine N-oxide:

Acute oral toxicity : LD50 (Rat, male and female): 1.495 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rabbit): > 1.880 mg/kg
Assessment: No adverse effect has been observed in acute

dermal toxicity tests.
Remarks: Information given is based on data obtained from similar substances.

dodecyldimethylamine oxide:

Acute oral toxicity : LD50 (Rat, male and female): 1.064 mg/kg
Method: OECD Test Guideline 401

sodium hydroxide:

Acute oral toxicity : LDLo (Rabbit): 500 mg/kg

hexadecyldimethylamine N-oxide:

Acute oral toxicity : LD50 (Rat): 600 - 3.873 mg/kg
Assessment: The component/mixture is classified as acute oral toxicity, category 5.
Remarks: Information given is based on data obtained from similar substances.

Acute dermal toxicity : Remarks: see user defined free text

Sulfonic acids, C14-17-sec-alkane, sodium salts:

Acute oral toxicity : LD50 (Rat): > 500 - 2.000 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Mouse): > 5.000 mg/kg
Remarks: Weight of evidence

Skin corrosion/irritation

Causes severe burns.

Product:

Remarks : Extremely corrosive and destructive to tissue.
Causes severe skin burns and eye damage.

Components:

sodium hypochlorite:

Result : Corrosive to skin

N,N-dimethyltetradecylamine N-oxide:

Species : Rabbit
Method : OECD Test Guideline 404

Result : Irritating to skin

dodecyldimethylamine oxide:

Species : Rabbit
Method : OECD Test Guideline 404
Result : Irritating to skin

sodium hydroxide:

Result : Causes severe burns.

hexadecyldimethylamine N-oxide:

Result : Irritating to skin

Sulfonic acids, C14-17-sec-alkane, sodium salts:

Result : Skin irritation

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Remarks : May cause irreversible eye damage.

Components:

sodium hypochlorite:

Result : Corrosive to eyes

N,N-dimethyltetradecylamine N-oxide:

Species : Rabbit
Method : OECD Test Guideline 405
Result : Irreversible effects on the eye

dodecyldimethylamine oxide:

Species : Rabbit
Method : OECD Test Guideline 405
Result : Risk of serious damage to eyes.

sodium hydroxide:

Result : Corrosive to eyes

hexadecyldimethylamine N-oxide:

Result : Severely irritating to eyes

Sulfonic acids, C14-17-sec-alkane, sodium salts:

Method : OECD Test Guideline 405
Result : Risk of serious damage to eyes.

Respiratory or skin sensitization

Skin sensitization

Not classified due to lack of data.

Respiratory sensitization

Not classified due to lack of data.

Components:

N,N-dimethyltetradecylamine N-oxide:

Test Type : Buehler Test
Species : Guinea pig
Method : OECD Test Guideline 406
Remarks : Information given is based on data obtained from similar substances.

hexadecyldimethylamine N-oxide:

Result : Does not cause skin sensitization.

Sulfonic acids, C14-17-sec-alkane, sodium salts:

Test Type : Maximization Test
Species : Guinea pig
Method : OECD Test Guideline 406
Result : Does not cause skin sensitization.
Remarks : Read-across (Analogy)

Germ cell mutagenicity

Not classified due to lack of data.

Components:

sodium hypochlorite:

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: without metabolic activation
Result: negative

Test Type: comet assay
Test system: Human lymphocytes
Metabolic activation: without metabolic activation
Result: positive

Genotoxicity in vivo : Test Type: chromosome aberration assay
Species: Mouse (male)
Result: negative

N,N-dimethyltetradecylamine N-oxide:

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Result: negative
Remarks: Information given is based on data obtained from similar substances.

Genotoxicity in vivo : Test Type: dominant lethal test
Species: Mouse (male)
Result: negative
Remarks: Information given is based on data obtained from similar substances.

Test Type: Micronucleus test
Species: Mouse
Result: negative
Remarks: Information given is based on data obtained from similar substances.

Test Type: chromosome aberration assay
Species: Chinese hamster
Result: negative
Remarks: Information given is based on data obtained from similar substances.

dodecyldimethylamine oxide:

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471

Result: negative

Genotoxicity in vivo : Test Type: dominant lethal test
Species: Mouse
Result: negative

hexadecyldimethylamine N-oxide:

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Result: negative
Remarks: Information given is based on data obtained from similar substances.

Sulfonic acids, C14-17-sec-alkane, sodium salts:

Genotoxicity in vitro : Result: In vitro tests did not show mutagenic effects

Genotoxicity in vivo : Result: In vivo tests did not show mutagenic effects

Germ cell mutagenicity-Assessment : Weight of evidence does not support classification as a germ cell mutagen.

Carcinogenicity

Not classified due to lack of data.

Components:

Sulfonic acids, C14-17-sec-alkane, sodium salts:

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

Reproductive toxicity

Not classified due to lack of data.

Components:

Sulfonic acids, C14-17-sec-alkane, sodium salts:

Reproductive toxicity - Assessment : No toxicity to reproduction

STOT-single exposure

Not classified due to lack of data.

Components:

sodium hypochlorite:

Routes of exposure	:	Inhalation
Target Organs	:	Respiratory Tract
Assessment	:	May cause respiratory irritation.

STOT-repeated exposure

Not classified due to lack of data.

Repeated dose toxicity

Components:

Sulfonic acids, C14-17-sec-alkane, sodium salts:

Species	:	Rat
NOAEL	:	> 4000 mg/kg bw/day
Application Route	:	Oral

Species	:	Rat
NOAEL	:	200 mg/kg bw/day
Application Route	:	Oral

Aspiration toxicity

Not classified due to lack of data.

11.2 Information on other hazards

Endocrine disrupting properties

Not classified due to lack of data.

Product:

Assessment	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Further information

Product:

Remarks	:	No data available

SECTION 12: Ecological information

12.1 Toxicity

Components:

sodium hypochlorite:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 0,05 - 0,071 mg/l Exposure time: 96 h LC50 (Pimephales promelas (fathead minnow)): 0,06 - 0,11 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	LC 50 (Daphnia magna (Water flea)): 0,045 - 0,068 mg/l Exposure time: 48 h
M-Factor (Acute aquatic toxicity)	:	10
M-Factor (Chronic aquatic toxicity)	:	1

N,N-dimethyltetradecylamine N-oxide:

Toxicity to fish	:	LC50 (Danio rerio (zebra fish)): 2,4 mg/l Exposure time: 96 h Test Type: semi-static test Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia): 2,64 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 Remarks: Mortality
Toxicity to algae/aquatic plants	:	EC50 (Raphidocelis subcapitata (freshwater green alga)): 0,19 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 NOEC (Raphidocelis subcapitata (freshwater green alga)): >= 0,067 mg/l Exposure time: 28 Days Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity)	:	1
Toxicity to microorganisms	:	EC10 (Pseudomonas putida): 24 mg/l Exposure time: 18 h
Toxicity to fish (Chronic toxicity)	:	NOEC: 0,42 mg/l Exposure time: 302 d Species: Pimephales promelas (fathead minnow) Test Type: flow-through test Remarks: Information given is based on data obtained from similar substances.
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0,7 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Test Type: flow-through test Method: OECD Test Guideline 211 Remarks: Information given is based on data obtained from similar substances.

dodecyldimethylamine oxide:

Toxicity to fish	:	LC50 (Oryzias latipes (Orange-red killifish)): 31,8 mg/l Exposure time: 96 h Test Type: semi-static test Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 3,43 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (microalgae)): 0,2 mg/l End point: Biomass Exposure time: 72 h NOEC : 0,067 mg/l Exposure time: 28 d Test Type: flow-through test
M-Factor (Acute aquatic toxicity)	:	1
Toxicity to fish (Chronic toxicity)	:	NOEC: 0,42 mg/l Exposure time: 302 d Species: Pimephales promelas (fathead minnow)

Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,7 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Test Type: semi-static test
Method: OECD Test Guideline 211

sodium hydroxide:

Toxicity to fish : LC50 (Gambusia affinis (Mosquito fish)): 125 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 34,59 - 47,13 mg/l
Exposure time: 48 h

hexadecyldimethylamine N-oxide:

Toxicity to fish : (Danio rerio (zebra fish)): 0,45 - 0,8 mg/l
Exposure time: 96 h
Test Type: Renewal
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,6 - 0,7 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Selenastrum capricornutum (green algae)): 0,11 mg/l
End point: Growth inhibition
Exposure time: 72 h
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 1

M-Factor (Chronic aquatic toxicity) : 1

Sulfonic acids, C14-17-sec-alkane, sodium salts:

Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): 1 - 10 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna Straus (Water flea)): 9,81 mg/l
Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): 61 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 1

Toxicity to microorganisms : NOEC (Pseudomonas sp.): 600 mg/l
Exposure time: 16 h
Method: DIN 38 412 Part 8

Toxicity to fish (Chronic toxicity) : NOEC: 0,85 mg/l
Exposure time: 28 d
Species: Oncorhynchus mykiss (rainbow trout)
Method: OECD Test Guideline 204

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,36 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 202

Toxicity to soil dwelling organisms : NOEC: 470 mg/kg
Exposure time: 56 d
Species: Eisenia fetida (earthworms)
Method: OECD Test Guideline 222

12.2 Persistence and degradability

ProductBiodegradability : This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.

Components:

sodium hypochlorite:

Biodegradability : Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

N,N-dimethyltetradecylamine N-oxide:

Biodegradability : Test Type: aerobic
Inoculum: activated sludge
Result: Readily biodegradable.
Biodegradation: 67,5 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

dodecyldimethylamine oxide:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 88 %
Exposure time: 28 d
Method: OECD Test Guideline 301C

sodium hydroxide:

Biodegradability : Result: The methods for determining biodegradability are not applicable to inorganic substances.

Sulfonic acids, C14-17-sec-alkane, sodium salts:

Biodegradability : Test Type: aerobic
Inoculum: activated sludge
Result: Readily biodegradable.
Biodegradation: 9 %
Exposure time: 28 d
Method: OECD Test Guideline 301E

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: The bioaccumulation potential cannot be determined.

Components:

sodium hypochlorite:

Partition coefficient: n-octanol/water : log Pow: -3,42

N,N-dimethyltetradecylamine N-oxide:

Partition coefficient: n-octanol/water : log Pow: 2,7 (20 °C)

dodecyldimethylamine oxide:

Bioaccumulation : Bioconcentration factor (BCF): 0,7

Partition coefficient: n-octanol/water : Pow: 4,67

hexadecyldimethylamine N-oxide:

Partition coefficient: n-octanol/water : log Pow: ca. 6,64

Sulfonic acids, C14-17-sec-alkane, sodium salts:

Bioaccumulation : Remarks: No bioaccumulation is to be expected (log Pow <= 4).

Partition coefficient: n-octanol/water : log Pow: 0,2 (20 °C)

12.4 Mobility in soil

Components:

N,N-dimethyltetradecylamine N-oxide:

Distribution among environmental compartments : Koc: 1525
Method: OECD Test Guideline 106

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

No data available

12.7 Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Very toxic to aquatic life.
Toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	:	Send to a licensed waste management company. The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of in accordance with local regulations.
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

SECTION 14: Transport information

14.1 UN number or ID number

ADR: UN1719

ADN: UN1719

RID: UN1719

IMDG-Code: UN1719

IATA-DGR: UN1719

14.2 UN proper shipping name

ADR: CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE, SODIUM HYPOCHLORITE)
ADN: CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE, SODIUM HYPOCHLORITE)
RID: CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE, SODIUM HYPOCHLORITE)
IMDG-Code: CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE, SODIUM HYPOCHLORITE)
IATA-DGR: Caustic alkali liquid, n.o.s. (SODIUM HYDROXIDE, SODIUM HYPOCHLORITE)

14.3 Transport hazard class(es)

ADR: 8
ADN: 8

RID: 8
IMDG-Code: 8
IATA-DGR: 8

14.4 Packing group

ADR: III
ADN: III
RID: III
IMDG-Code: III
IATA-DGR: III

14.5 Environmental hazards

ADR: Not applicable
ADN: Not applicable
RID: Not applicable
IMDG-Code: Not applicable
IATA-DGR: Not applicable
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14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59).	:	Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable
Regulation (EU) No 2024/590 on substances that deplete the ozone layer	:	Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Not applicable
Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals	:	Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.	E1	ENVIRONMENTAL HAZARDS

Regulation (EC) No. 648/2004, as amended	:	less than 5 %: Anionic surfactants, Non-ionic surfactants, Chlorine-based bleaching agents Preservation agents: Methylchloroisothiazolinone, Methylisothiazolinone

Other regulations:

Regulation (EC) No. 648/2004 - Detergents regulation

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

Ingredients which must be listed on the label

Sodium hypochlorite (SODIUM HYPOCHLORITE)
N,N-DIMETHYLTETRADECYLAMINE N-OXIDE (MYRISTAMINE OXIDE)
LAURYL DIMETHYLAMINE OXIDE (LAURAMINE OXIDE)
sodium hydroxide (SODIUM HYDROXIDE)

The ingredients of this product are reported in the following inventories:

TW TCSI	:	On the inventory, or in compliance with the inventory
US TSCA	:	Product contains substance(s) not listed on TSCA inventory.
AU AIIC	:	Not in compliance with the inventory
CA. DSL	:	This product contains one or more components that are not on the Canadian DSL and have annual quantity limits.
JP ENCS	:	On the inventory, or in compliance with the inventory
KR KECI	:	Not in compliance with the inventory

PH PICCS	:	Not in compliance with the inventory
CN IECSC	:	Not in compliance with the inventory

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture.

SECTION 16: Other information

Further information
Revision Date: 14.09.2026

Classification of the mixture:		**Classification procedure:**
Met. Corr. 1	H290	Based on product data or assessment
Skin Corr. 1	H314	Based on product data or assessment
Eye Dam. 1	H318	Based on product data or assessment
Aquatic Acute 1	H400	Calculation method
Aquatic Chronic 2	H411	Calculation method

Full text of H-Statements

H290	:	May be corrosive to metals.
H302	:	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.
H400	:	Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.
H411	:	Toxic to aquatic life with long lasting effects.
H412	:	Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Met. Corr.	:	Corrosive to Metals
Skin Corr.	:	Skin corrosion
Skin Irrit.	:	Skin irritation
STOT SE	:	Specific target organ toxicity - single exposure

ES VLA	:	Spain. Environmental Limits for exposure to Chemical agents - Table 1: Occupational Exposure Values
ES VLA / VLA-EC	:	Environmental Short Term Value

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; BGW - Biological Limit Values; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardization; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organization for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); LSPN - List of Hazardous Notified Substances (Chile); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Sources of key data used to compile the Material Safety Data Sheet
Key literature references and sources of data
SOLENIS Internal data
SOLENIS internal data including own and sponsored test reports
The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This SDS has been prepared by the Solenis Environmental Health and Safety Department.

ES / EN