



SAFETY DATA SHEET

This Safety Data Sheet (SDS) was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 (in particular as amended by Commission Regulation (EU) 2020/878 with respect to SDSs) and Regulation (EC) No. 1272/2008 (CLP)

Issuing Date: 02-Dec-2024

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Revision Number 1

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

1.1. Product identifier

Product Identifier C-21131085-001_RET_CLPR7_EUR_SAW
Product Name ARIEL ORIGINAL BIOLOGICAL LAUNDRY DETERGENT
Product Form Mixture
Pure substance/mixture Mixture

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

Recommended use Intended for general public
Uses advised against No information available
Main user category SU 21 - Consumer uses: Private households (= general public = consumers)
Product category Laundry Liquid
Use category PC35 - Washing and cleaning products (including solvent based products)

1.3. Details of the supplier of the safety data sheet

Supplier	Manufacturer
Procter & Gamble UK Brooklands, Weybridge, Surrey, KT13 0XP, UK 01932 896000 Fax: 01932 896200	Procter & Gamble Amiens S.A.S. Tel: ZI Nord 150 rue André Durouchez BP 90045 80082 Amiens Cedex 2 France
P&G DCE bvba/sprl-Belgium Dist. Div., Temselaan 100, B-1853 Strombeek-Bever, Belgium (IE) 1800 535 119	

For further information, please contact

E-mail address pgsds.im@pg.com

1.4. Emergency telephone number

Emergency Telephone (UK) Emergency Tel: 0800 328 8304 (IRL) Emergency Tel: 1800 509 497

(IRL) Poisons information: for information or to report a poisoning incident contact The National Poisons Information Centre 01 8092166 (8.00 a.m. to 10.00 p.m. 7 days a week)

SECTION 2: Hazards identification

For consumer use in households, follow precautionary and first aid instructions on product label

2.1. Classification of the substance or mixture

Classification according to
Regulation (EC) No. 1272/2008 [CLP]

Serious eye damage/eye irritation	Category 2 - (H319)
Chronic aquatic toxicity	Category 3 - (H412)

2.2. Label elements



Signal word
Warning

Hazard statements

H319 - Causes serious eye irritation
H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements - EU (§28, 1272/2008)

P102 - Keep out of reach of children
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P305 + P351 - IF IN EYES: Rinse cautiously with water for several minutes
P501 - Dispose of contents/container to an appropriate local waste system

EUH208 - Contains Citronellol; Geraniol; Tetramethyl Acetyloctahydronaphthalenes; Benzyl Salicylate; Methylundecanal; Benzisothiazolinone; Delta-Damascone May produce an allergic reaction.

2.3. Other hazards

No information available

Endocrine Disruptor Information There are no substances contained at or above the regulated value for declaration of >0.1% that fall under the definition of confirmed endocrine disruptors of any EU regulation.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	CAS No.	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Sodium C10-13 Alkyl Benzenesulfonate	68411-30-3	10 - 20	01-21194894 28-22	270-115-0	Acute Tox. 4 (Oral) (H302) Aquatic Chronic 3 (H412) Eye Dam. 1 (H318) Skin Irrit. 2 (H315)	-	-	-
C15 Pareth-n	34398-05-5	5 - 10	No data available	-	Acute Tox. 4 (Oral) (H302) Aquatic Acute 1 (H400) Aquatic Chronic 3 (H412) Eye Dam. 1	-	1	-

					(H318)			
Sodium Laureth Sulfate	68891-38-3	1 - 5	No data available	500-223-8 500-234-8	Aquatic Chronic 3 (H412) Eye Dam. 1 (H318) Skin Irrit. 2 (H315)	-	-	-
Sodium Cumenesulfonate	15763-76-5	1 - 5	01-21194894 11-37	239-854-6	Eye Irrit. 2 (H319)	-	-	-
Citronellol	106-22-9	0 - 1	01-21194539 95-23	203-375-0	Eye Irrit. 2 (H319) Skin Irrit. 2 (H315) Skin Sens. 1B (H317)	-	-	-
Geraniol	106-24-1	0 - 1	01-21195524 30-49	203-377-1	Eye Dam. 1 (H318) Skin Irrit. 2 (H315) Skin Sens. 1 (H317)	-	-	-
Methylundecanal	110-41-8	0 - 1	01-21199694 43-29	203-765-0	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Skin Irrit. 2 (H315) Skin Sens. 1B (H317)	-	1	1
Tetramethyl Acetyloctahydronaphthalenes	54464-57-2	0 - 1	01-21194899 89-04	259-174-3 259-175-9 268-978-3 268-979-9 915-730-3	Aquatic Chronic 1 (H410) Skin Irrit. 2 (H315) Skin Sens. 1B (H317)	-	-	1
Benzyl Salicylate	118-58-1	0 - 1	01-21199694 42-31	204-262-9	Aquatic Chronic 3 (H412) Skin Sens. 1B (H317)	-	-	-
Benzisothiazolinone	2634-33-5	0 - 1	01-21207615 40-60	220-120-9	Acute Tox. 2 inhalation (H330) Acute Tox. 4 (Oral) (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Eye Dam. 1 (H318) Skin Irrit. 2 (H315) Skin Sens. 1 (H317)	Skin Sens. 1 :: 0.036%<=C< 100%	1	1
Delta-Damascone	57378-68-4	0 - 1	01-21195351	260-709-8	Acute Tox. 4	-	1	1

			22-53	275-156-8	(Oral) (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Skin Irrit. 2 (H315) Skin Sens. 1A (H317)			
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Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59).

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance.
Inhalation	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. (Call a physician if symptoms occur).
Eye contact	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 or doctor.
Skin contact	IF ON SKIN: Wash with plenty of soap and water. Remove and isolate contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately.
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

4.2. Most important symptoms and effects, both acute and delayed

Symptoms	Coughing and/ or wheezing. Redness. Swelling of tissue. Itching. Sneezing. Dryness. Pain. Blurred vision. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Excessive secretion.
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4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Dry chemical. Alcohol resistant foam. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	None in particular.
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5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions

See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment

Scoop absorbed substance into closing containers.

Methods for cleaning up

Take up with sand or other noncombustible absorbent material and place into containers for later disposal. Small quantities of liquid spill: Large Spills: contain released substance, pump into suitable containers. This material and its container must be disposed of in a safe way, and as per local legislation.

Prevention of secondary hazards

Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections

See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid contact with eyes. Use personal protection equipment. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

General hygiene considerations

Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep/store only in original container. Keep tightly closed in a dry and cool place.

7.3. Specific end use(s)

Risk Management Methods (RMM)

The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Geraniol	-	-	skin sensitizer	-	-
Benzisothiazolinone	-	-	skin sensitizer	-	-

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL)

Long term.

Chemical name	Worker - dermal, long-term - systemic	Worker - inhalative, long-term - systemic	Worker - dermal, long-term - local	Worker - inhalative, long-term - local
Sodium C10-13 Alkyl Benzenesulfonate	119 mg/kg bw/day	7.6 mg/m ³	-	6 mg/m ³
Sodium Cumenesulfonate	191 mg/kg bw/day	37.4 mg/m ³	0.096 mg/cm ²	-
Citronellol	327.4 mg/kg bw/day	161.6 mg/m ³	-	10 mg/m ³
Geraniol	4.2 mg/kg bw/day	11.8 mg/m ³	11.8 mg/cm ²	-
Methylundecanal	10.46 mg/kg bw/day	36.89 mg/m ³	35.7 mg/cm ²	92.21 mg/m ³
Benzyl Salicylate	2.21 mg/kg bw/day	7.8 mg/m ³	-	-
Tetramethyl Acetyloctahydronaphthalenes	28.7 mg/kg bw/day	30 mg/m ³	0.648 mg/cm ²	-
Benzisothiazolinone	0.966 mg/kg bw/day	6.81 mg/m ³	-	-

Delta-Damascone	2.1 mg/kg bw/day	1.5 mg/m ³	0.116 mg/cm ²	-
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Chemical name	Consumer - oral, long-term - local	Consumer - inhalative, long-term - local	Consumer - dermal, long-term - local
Sodium C10-13 Alkyl Benzenesulfonate	-	1.5 mg/m ³	-
Sodium Cumenesulfonate	-	-	0.048 mg/cm ²
Citronellol	-	10 mg/m ³	-
Geraniol	-	-	1.18 mg/cm ²
Methylundecanal	-	22.74 mg/m ³	17.86 mg/cm ²
Tetramethyl Acetyloctahydronaphthalenes	-	-	0.38 mg/cm ²
Delta-Damascone	-	-	0.069 mg/cm ²

Chemical name	Consumer - oral, long-term - systemic	Consumer - inhalative, long-term - systemic	Consumer - dermal, long-term - systemic
Sodium C10-13 Alkyl Benzenesulfonate	0.425 mg/kg bw	1.3 mg/m ³	42.5 mg/kg bw/day
Sodium Cumenesulfonate	3.8 mg/kg bw	6.6 mg/m ³	68.1 mg/kg bw/day
Citronellol	13.8 mg/kg bw	47.8 mg/m ³	196.4 mg/kg bw/day
Geraniol	2 mg/kg bw	3.5 mg/m ³	2.5 mg/kg bw/day
Methylundecanal	5.23 mg/kg bw	9.1 mg/m ³	5.23 mg/kg bw/day
Benzyl Salicylate	0.79 mg/kg bw	1.37 mg/m ³	0.79 mg/kg bw/day
Tetramethyl Acetyloctahydronaphthalenes	3 mg/kg bw	9 mg/m ³	17.2 mg/kg bw/day
Benzisothiazolinone	-	1.2 mg/m ³	0.345 mg/kg bw/day
Delta-Damascone	0.25 mg/kg bw	0.43 mg/m ³	0.25 mg/kg bw/day

Derived No Effect Level (DNEL) Short term.

Chemical name	Worker - dermal, short-term - systemic	Worker - inhalative, short-term - systemic	Worker - dermal, short-term - local	Worker - inhalative, short-term - local
Citronellol	-	-	2.95 mg/cm ²	10 mg/m ³
Methylundecanal	100 mg/kg bw/day	352.63 mg/m ³	71.43 mg/cm ²	881.58 mg/m ³
Delta-Damascone	-	-	0.014 mg/cm ²	-

Chemical name	Consumer - inhalative, short-term - local	Consumer - dermal, short-term - local
Citronellol	10 mg/m ³	2.95 mg/cm ²
Methylundecanal	217.39 mg/m ³	35.71 mg/cm ²
Delta-Damascone	-	0.009 mg/cm ²

Chemical name	Consumer - oral, short-term - systemic	Consumer - inhalative, short-term - systemic	Consumer - dermal, short-term - systemic
Methylundecanal	25 mg/kg bw	86.96 mg/m ³	50 mg/kg bw/day

Predicted No Effect Concentration (PNEC)

Chemical name	Fresh Water	Marine water	Intermittent release
Sodium C10-13 Alkyl Benzenesulfonate	0.268 mg/L	0.027 mg/L	0.017 mg/L
Sodium Cumenesulfonate	0.1 mg/L	0.01 mg/L	1 mg/L
Citronellol	0.002 mg/L	0 mg/L	0.024 mg/L
Geraniol	0.011 mg/L	0.001 mg/L	0.108 mg/L
Methylundecanal	0.66 mg/L	0 mg/L	0.002 mg/L
Benzyl Salicylate	0.001 mg/L	0 mg/L	0.01 mg/L
Tetramethyl Acetyloctahydronaphthalenes	0.025 mg/L	0.003 mg/L	-
Benzisothiazolinone	0.004 mg/L	0 mg/L	0.001 mg/L

Delta-Damascone	0.007 mg/L	0.001 mg/L	0.004 mg/L
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Chemical name	Freshwater sediment	Marine sediment	Sewage treatment plant	Soil	Air	Oral
Sodium C10-13 Alkyl Benzenesulfonate	8.1 mg/kg dwt	6.8 mg/kg dwt	3.43 mg/L	35 mg/kg dwt	-	-
Sodium Cumenesulfonate	0.372 mg/kg dwt	0.037 mg/kg dwt	100 mg/L	0.016 mg/kg dwt	-	-
Citronellol	0.026 mg/kg dwt	0.003 mg/kg dwt	580 mg/L	0.004 mg/kg dwt	-	-
Geraniol	0.115 mg/kg dwt	0.011 mg/kg dwt	0.7 mg/L	0.017 mg/kg dwt	-	-
Methylundecanal	0.265 mg/kg dwt	0.027 mg/kg dwt	10 mg/L	0.053 mg/kg dwt	-	-
Benzyl Salicylate	0.583 mg/kg dwt	0.058 mg/kg dwt	10 mg/L	1.41 mg/kg dwt	-	-
Tetramethyl Acetyloctahydronaphthalenes	3.73 mg/kg dwt	0.75 mg/kg dwt	10 mg/L	2.7 mg/kg dwt	-	-
Benzisothiazolinone	0.05 mg/kg dwt	0.005 mg/kg dwt	1.03 mg/L	3 mg/kg dwt	-	-
Delta-Damascone	0.958 mg/kg dwt	0.096 mg/kg dwt	2.41 mg/L	0.187 mg/kg dwt	-	-

8.2. Exposure controls

Personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Hand protection	No special protective equipment required.
Skin and body protection	No special protective equipment required.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.
Environmental exposure controls	Prevent that the undiluted product reaches surface waters.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquid
Color	Coloured
Odor	Pleasant (perfume)
Odor threshold	Not applicable

Property	Values	Remarks • Method
Melting point / freezing point	No data available	Not available. This property is not relevant for the safety and classification of this product
Initial boiling point and boiling range	> 95 °C	
Flammability		Not applicable. This property is not relevant for liquid product forms
Flammability Limit in Air		Not available. This property is not relevant for the safety and classification of this product
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No Flash to Boiling (NFTB)	

Autoignition temperature	No data available	Not available. This property is not relevant for the safety and classification of this product
Decomposition temperature	No Data Available	Not available. This property is not relevant for the safety and classification of this product
pH	7 - 9	
Dynamic viscosity	100 - 1000 mPa s	
Water solubility	Soluble in water	
Solubility(ies)	No Data Available	Not available. This property is not relevant for the safety and classification of this product
Partition coefficient	No Data Available	Not available. This property is not relevant for the safety and classification of this product
Vapor pressure	No Data Available	Not available. This property is not relevant for the safety and classification of this product
Relative density	1 - 1.1	
Relative vapor density	No data available	Not available. This property is not relevant for the safety and classification of this product
Particle characteristics		Not available. This property is not relevant for the safety and classification of this product
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

9.2.1. Information with regard to physical hazard classes
No information available

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
Eye contact	Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.
Skin contact	Specific test data for the substance or mixture is not available. May cause irritation. Prolonged contact may cause redness and irritation.
Ingestion	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms May cause redness and tearing of the eyes.

Numerical measures of toxicity

No information available

Acute toxicity

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium C10-13 Alkyl Benzenesulfonate	1080 mg/kg (RAT)	5001 mg/kg (RAT)	-
Sodium Laureth Sulfate	5001 mg/kg (RAT)	5001 mg/kg (RAT)	-
Sodium Cumenesulfonate	6721 mg/kg (RAT)	5001 mg/kg (RABBIT)	21 mg/L (RAT)
Citronellol	3450 mg/kg bodyweight (rat)	2650 mg/kg bodyweight (rabbit)	-
Geraniol	3600 mg/kg (RAT)	5001 mg/kg (Rabbit)	-
Methylundecanal	5001 mg/kg (RAT)	8281 mg/kg (Rabbit)	-
Tetramethyl Acetyloctahydronaphthalenes	//	5001 mg/kg (Rat)	//
Benzyl Salicylate	3031 mg/kg (RAT)	5001 mg/kg (Rabbit)	-
Benzisothiazolinone	490 mg/kg (RAT)	5001 mg/kg (Rat)	-
Delta-Damascone	1400 mg/kg (RAT)	5001 mg/kg (RABBIT)	-

Chemical name	Carcinogenicity	Species	Eye Damage	Species	Developmental toxicity	Species	Mutagenicity	Species
Sodium C10-13 Alkyl Benzenesulfonate	-	-	Y (OECD 405)	-	-	-	-	-
Sodium Laureth Sulfate	-	-	Y (OECD 405)	-	-	-	-	-
Sodium Cumenesulfonate	-	-	Y (OECD 405)	-	-	-	-	-
Citronellol	-	-	Y (OECD 405)	-	-	-	-	-
Geraniol	-	-	Y (OECD 405)	-	-	-	-	-
Benzyl Salicylate	-	-	Y (100%)	-	-	-	-	-
Benzisothiazolinone	-	-	Y (EPA OPP 81-4)	-	-	-	-	-

Chemical name	Reproductive toxicity	Species	Skin corrosion/irritation	Species	Sensitization	Species

Chemical name	Reproductive toxicity	Species	Skin corrosion/irritation	Species	Sensitization	Species
Sodium C10-13 Alkyl Benzenesulfonate	-	-	Y (OECD 404)	-	-	-
Sodium Laureth Sulfate	-	-	Y (OECD 404)	-	-	-
Sodium Cumenesulfonate	-	-	Y (OECD 404)	-	-	-
Citronellol	-	-	Y (OECD 404)	-	-	-
Geraniol	-	-	Y (OECD 404)	-	-	-
Methylundecanal	-	-	Y	-	-	-
Tetramethyl Acetyloctahydronaphthalenes	-	-	OECD 439	-	-	-
Delta-Damascone	-	-	Y (OECD 439)	-	-	-

Chemical name	Skin sensitization	Species	STOT - single exposure	Target Organs	Species	STOT - repeated exposure	Target Organs	Species	Aspiration hazard
Sodium Laureth Sulfate	N (OECD 406)	-	-	-	-	-	-	-	-
Citronellol	Y (OECD 429)	-	-	-	-	-	-	-	-
Geraniol	Y (OECD 429)	-	-	-	-	-	-	-	-
Methylundecanal	Y (OECD 429)	-	-	-	-	-	-	-	-
Benzyl Salicylate	Y (OECD 429)	-	-	-	-	-	-	-	-
Tetramethyl Acetyloctahydronaphthalenes	OECD 429	-	-	-	-	-	-	-	-
Benzisothiazolinone	Y (OECD 406)	-	-	-	-	-	-	-	-
Delta-Damascone	N (OECD 429)	-	-	-	-	-	-	-	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Not applicable.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory or skin sensitization	Not applicable.
Germ cell mutagenicity	None known.
Carcinogenicity	None known.
Reproductive toxicity	None known.
STOT - single exposure	None known.

STOT - repeated exposure None known.

Aspiration hazard Not applicable.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties There are no substances contained at or above the regulated value for declaration of >0.1% that fall under the definition of confirmed endocrine disruptors of any EU regulation.

11.2.2. Other information

Other adverse effects None known.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Acute toxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sodium C10-13 Alkyl Benzenesulfonate	235 mg/L (Raphidocelis subcapitata; 72 h)	1.67 mg/L (Lepomis macrochirus; 96 h)	-	2.9 mg/L (OECD 202; Daphnia magna; 48 h)
Sodium Laureth Sulfate	-	5 mg/L (OECD 203; Brachydanio rerio (zebrafish); 96 h)	-	5 mg/L (OECD 202; Daphnia magna (Water flea); 48 h)
Sodium Cumenesulfonate	252 mg/L (OECD 201; Raphidocelis subcapitata; 72 h)	253 mg/L (OECD 203; Danio rerio; 96 h)	1000 mg/L (OECD 209; activated sludge of a predominantly domestic sewage; 3 h)	305 mg/L (OECD 202; Daphnia magna; 48 h)
Citronellol	2.4 mg/L (72 h)	14.66 mg/L (Leuciscus idus; 96 h)	10001 mg/L (Pseudomonas putida; 0.5 h)	17.48 mg/L (EU Directive 79/831/EEC, Annex V, part C.; Daphnia magna; 48 h)
Geraniol	13.1 mg/L (OECD 201; Desmodesmus subspicatus; 72 h)	22 mg/L (OECD 203; Danio rerio; 96 h)	70 mg/L (OECD 209; activated sludge, domestic; 0.5 h)	10.8 mg/L (OECD 202; Daphnia magna; 48 h)
Methylundecanal	0.18 mg/L (OECD 201; Pseudokirchneriella subcapitata; 72 h)	0.35 mg/L (OECD 203; Oncorhynchus mykiss; 96 h)	-	0.21 mg/L (OECD 202; Daphnia magna; 48 h)
Tetramethyl Acetyloctahydronaphthalenes	2.8 mg/L (OECD 201; Desmodesmus subspicatus; 72 h)	1.3 mg/L (OECD 203; Lepomis macrochirus; 96 h)	-	1.38 mg/L (OECD 202; Daphnia magna; 48 h)
Benzyl Salicylate	1.29 mg/L (OECD 201; Raphidocelis subcapitata; 72 h)	1.03 mg/L (EU Method C.1; danio rerio; 96 h)	-	1.16 mg/L (OECD 202; Daphnia magna; 48 h)
Benzisothiazolinone	0.11 mg/L (OECD 201; Pseudokirchneriella subcapitata; 72 h)	2.15 mg/L (OECD 203; Oncorhynchus mykiss; 96 h)	12.8 mg/L (OECD 209; activated sludge; 3 h)	2.9 mg/L (OECD 202; Daphnia magna; 48 h)
Delta-Damascone	4.54 mg/L (OECD 201; Raphidocelis subcapitata; 72 h)	0.97 mg/L (OECD 203; Oryzias latipes; 96 h)	241 mg/L (OECD 209; activated sludge; 3 h)	1.18 mg/L (OECD 211; Daphnia magna; 21 d)

Chronic Toxicity

Chemical name	Toxicity to algae (NOEC or ECx)*	Toxicity to fish (NOEC or ECx)*	Toxicity to daphnia and other aquatic invertebrates (NOEC or ECx)*	Toxicity to Microorganisms (NOEC or ECx)*	Toxicity to other organisms
Sodium C10-13 Alkyl Benzenesulfonate	0.5 mg/L (Raphidocelis subcapitata; 4 d)	0.23 mg/L (OECD 210; Oncorhynchus mykiss; 72 d)	1.18 mg/L (OECD 211; Daphnia magna; 21 d)	-	2.4 mg/L (//OECD 218; Chironomus riparius; 28 d)
Sodium Cumenesulfonate	240 mg/L (EPA OTS 797.1050; Raphidocelis subcapitata; 4 d)	825 mg/L (EPA OTS 797.1400; Oncorhynchus mykiss; 4 d)	31 mg/L (Daphnia magna; 21 d)	-	-
Citronellol	1.1 mg/L (Scenedesmus subspicatus; 3 d)	4.6 mg/L (Leuciscus idus; 4 d)	3.1 mg/L (Daphnia magna; 2 d)	(580 mg/L (DIN 38412, Part 27; Pseudomonas putida; 0.02083 d))	-
Geraniol	1 mg/L (OECD 201; Desmodesmus subspicatus; 3 d)	10 mg/L (OECD 203; Danio rerio; 4 d)	-	(13 mg/L (OECD 209; 0.5 h))	-
Methylundecanal	0.089 mg/L (OECD 201; Pseudokirchneriella subcapitata; 3 d)	0.11 mg/L (OECD 203; Oncorhynchus mykiss; 4 d)	0.033 mg/L (OECD 211; Daphnia magna; 21 d)	(100 mg/L (OECD 301F; activated sludge of a predominantly domestic sewage; 22 d))	-
Tetramethyl Acetyloctahydronaphthalenes	2.6 mg/L (OECD 201; Desmodesmus subspicatus; 3 d)	0.16 mg/L (OECD 210; Danio rerio; 30 d)	0.028 mg/L (OECD 211; Daphnia magna; 21 d)	(> 100 mg/L (OECD 301 F; 42 d))	101 (OECD 301 F; activated sludge of a predominantly domestic sewage; 42 d)
Benzyl Salicylate	0.502 mg/L (OECD 201; Raphidocelis subcapitata; 3 d)	-	0.894 mg/L (OECD 202; Daphnia magna; 2 d)	-	-
Benzisothiazolinone	0.05 mg/L (OECD 201; Raphidocelis subcapitata; 3 d)	-	-	-	10.3 mg/L (OECD 209; activated sludge of a predominantly domestic sewage; 0.125 d)
Delta-Damascone	0.38 mg/L (OECD 201; Raphidocelis subcapitata; 3 d)	0.118 mg/L (OECD 210; Pimephales promelas; 32 d)	0.35 mg/L (OECD 211; Daphnia magna; 21 d)	-	-

12.2. Persistence and degradability**Persistence and degradability**

Chemical name	Ready Biodegradation Test (OECD 301)	Abiotic Degradation Hydrolysis	Abiotic Degradation Photolysis	Biodegradation Other Tests
Sodium C10-13 Alkyl Benzenesulfonate	85 % (OECD 301 B; aerobic; CO2 evolution; 29 d)	-	-	85% CO2; 29 d; OECD 301 B
C15 Pareth-n	60 % (OECD 301)	-	-	-
Sodium Laureth Sulfate	60 % (Category approach; OECD 301B; aerobic; 28 d)	-	-	-
Sodium Cumenesulfonate	98.8 % (; OECD 301 B; CO2 evolution; 28 d)	-	-	-
Citronellol	85 % (O2 consumption; 28 d)	-	0.16	-
Geraniol	95 % (OECD 301 A; DOC removal; 3 d)	-	-	94 (OECD 301 F; O2 consumption; 28 d)
Methylundecanal	68 % (O2; OECD 301 F; 22 d)	-	-	-
Benzyl Salicylate	93 % (O2; OECD 301 F; 28 d)	-	-	-
Tetramethyl Acetyloctahydronaphthalenes	0 % (OECD 301 C; aerobic; mixture of sewage, soil and natural water, O2 consumption; 28 d)	-	0.054	50 (OECD 314; aerobic; 1.9 d)
Benzisothiazolinone	0 % (CO2; OECD 301; 63 d)	-	0.31	-

Delta-Damascone	16 % (O2; OECD 301; 28 d)	332 d (OECD 111)	-	0% O2; 28 d; OECD 301 C
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12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
Sodium C10-13 Alkyl Benzenesulfonate	1.4
Sodium Laureth Sulfate	0.3
Sodium Cumenesulfonate	-1.1
Citronellol	3.41
Geraniol	2.6
Methylundecanal	4.9
Tetramethyl Acetyloctahydronaphthalenes	5.7
Benzyl Salicylate	4
Benzisothiazolinone	0.99

Chemical name	Octanol/water partition coefficient	Bioconcentration factor (BCF)
Sodium C10-13 Alkyl Benzenesulfonate	1.4 (1.4 (OECD 123))	87 L/kg (OECD 305 E)
Sodium Laureth Sulfate	3.9	-
Sodium Cumenesulfonate	-1.1 (-1.1 (OECD 107))	-
Citronellol	3.41	82.59 L/kg
Geraniol	2.6	-
Methylundecanal	4.9 (OECD 117)	2917 L/kg
Benzyl Salicylate	4	120-1170 (OECD 305 E)
Tetramethyl Acetyloctahydronaphthalenes	5.6 (OECD 117)	-
Benzisothiazolinone	0.7 (EU Method A.8)	6.62
Delta-Damascone	4.2	-

12.4. Mobility in soil

Mobility in soil

Chemical name	log Koc
Sodium C10-13 Alkyl Benzenesulfonate	3.4 (3.4)
Citronellol	70.79 (70.79)
Geraniol	70.79 (70.79)
Methylundecanal	3981 (3981 (OECD 121))
Benzyl Salicylate	5623
Tetramethyl Acetyloctahydronaphthalenes	4.12
Benzisothiazolinone	9.33 (OECD 121)
Delta-Damascone	1259 (1259 (OECD 121))

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

Chemical name	PBT and vPvB assessment
Sodium C10-13 Alkyl Benzenesulfonate	The substance is not PBT / vPvB
Sodium Laureth Sulfate	The substance is not PBT / vPvB
Sodium Cumenesulfonate	The substance is not PBT / vPvB
Citronellol	The substance is not PBT / vPvB
Geraniol	The substance is not PBT / vPvB
Methylundecanal	The substance is not PBT / vPvB
Benzyl Salicylate	The substance is not PBT / vPvB
Benzisothiazolinone	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties There are no substances contained at or above the regulated value for declaration of >0.1% that fall under the definition of confirmed endocrine disruptors of any EU regulation.

12.7. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products	The waste codes/waste designations below are in accordance with EWC. Waste must be delivered to an approved waste disposal company. Waste is to be kept separate from other types of waste until its disposal. Do not throw waste product into the sewer. Where possible recycling is preferred to disposal or incineration. Empty, uncleaned packaging need the same disposal considerations as filled packaging. For handling waste, see measures described in section 8. Dispose of in accordance with local regulations.
Contaminated packaging	Do not reuse empty containers.
Waste codes / waste designations according to EWC	20 01 29* - detergents containing dangerous substances 15 01 10* - packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

IATA

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	

IMDG

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

ADR

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

ADN

14.1 UN number or ID number	Not relevant
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14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	No information available
14.4 Packing group	Not relevant
14.5 Marine pollutant	Not regulated

SECTION 15: Regulatory information

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

National regulations

France

Occupational Illnesses (R-463-3, France)

Chemical name	French RG number	Title
Benzisothiazolinone	RG 65	-

Germany

Water hazard class (WGK) obviously hazardous to water (WGK 2)

Netherlands

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorizations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII) Regulation (EC) No. 648/2004 (Detergents regulation) Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP] Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
Geraniol	75	-
Benzyl Salicylate	75	-
Benzisothiazolinone	75	-

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

EU - Plant Protection Products (1107/2009/EC)

Chemical name	EU - Plant Protection Products (1107/2009/EC)
Geraniol	Plant protection agent

Biocidal Products Regulation (EU) No 528/2012 (BPR)

Chemical name	Biocidal Products Regulation (EU) No 528/2012 (BPR)
Geraniol	Product-type 18: Insecticides, acaricides and products to control other arthropods Product-type 19: Repellents and attractants
Benzisothiazolinone	Product-type 2: Disinfectants and algacides not intended for direct application to humans or animals Product-type 6: Preservatives for products during storage Product-type 9: Fiber, leather, rubber and polymerized materials preservatives Product-type 11: Preservatives for liquid-cooling and processing systems Product-type 12:

	Slimicides Product-type 13: Working or cutting fluid preservatives
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CESIO Recommendations

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

15.2. Chemical safety assessment

Chemical Safety Report

No chemical safety assessment has been carried out for this mixture per REACH regulation.

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

H302 - Harmful if swallowed
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H330 - Fatal if inhaled
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H412 - Harmful to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorization:

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	Sk*	Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Serious eye damage/eye irritation	Expert judgment and weight of evidence determination
Chronic aquatic toxicity	Calculation method

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Further information Salts listed in Section 3 without a REACH Registration number are exempt, based on Annex V.

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Disclaimer

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.

End of Safety Data Sheet