

SAFETY DATA SHEET

Finish Freshener



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

1.1 Product identifier

Product name : Finish Freshener
SDS no. : D0073683
Formulation # : FF0164299 / 3268197
Product type : Liquid.

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

Identified uses

Machine dishwashing (powder, liquid, tablet) for consumer use

1.3 Details of the supplier of the safety data sheet

Supplier

The United Kingdom:

RB UK Hygiene Home Commercial Ltd
Wellcroft House
Wellcroft Road
Slough, Berkshire
SL1 4AQ
Tel: 0800 376 8181
Email: ConsumerCare_UK@reckitt.com

The Republic Of Ireland:

RB Ireland Hygiene Home Commercial Ltd
7 Riverwalk
Citywest Business Campus
Dublin 24
Ireland
Tel: 01 661 7318
Email: ConsumerHealth_IE@reckitt.com

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : **GB** - NHS 111/NHS 24 Tel: 111
NI - www.gpoutofhours.hscni.net/
IE - Poisons Information Centre of Ireland: 01 809 2166 8am-10pm 7 days a week

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

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

Skin Irrit. 2, H315

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

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SECTION 2: Hazards identification

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : Causes skin irritation.

Precautionary statements

General : Keep out of reach of children.

Prevention : Wash hands thoroughly after handling.

Response : IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice.

Storage : Not applicable.

Disposal : Not applicable.

Supplemental label elements : Contains LINALOOL, Eucalyptol, ETHYL 2,2-DIMETHYLHYDROCINNAMAL, HEXANAL, NERYL ACETATE, LAURALDEHYDE, UNDECENAL, MENTHONE and 2,6-dimethylhept-5-enal. May produce an allergic reaction.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
2,6-DIMETHYL-7-OCTEN-2-OL	REACH #: 01-2119457274-37 EC: 242-362-4 CAS: 18479-58-8	<10	Skin Irrit. 2, H315 Eye Irrit. 2, H319	-	[1]
CITRONELLYL ACETATE	REACH #: 01-2119959860-27 EC: 205-775-0 CAS: 150-84-5	<2.5	Skin Irrit. 2, H315 Aquatic Chronic 2, H411	-	[1]
LINALOOL	REACH #: 01-2119474016-42 EC: 201-134-4 CAS: 78-70-6 Index: 603-235-00-2	<1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317	-	[1]

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SECTION 3: Composition/information on ingredients

Eucalyptol	REACH #: 01-2119967772-24 EC: 207-431-5 CAS: 470-82-6	<1	Flam. Liq. 3, H226 Skin Sens. 1B, H317	-	[1]
ETHYL 2,2-DIMETHYLHYDROCINNAMAL	EC: 266-819-2 CAS: 67634-15-5	<1	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	M [Acute] = 1	[1]
HEXANAL	EC: 200-624-5 CAS: 66-25-1	<1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317 Aquatic Chronic 2, H411	-	[1]
NERYL ACETATE	EC: 205-459-2 CAS: 141-12-8	<1	Skin Irrit. 2, H315 Skin Sens. 1B, H317	-	[1]
LAURALDEHYDE	REACH #: 01-2119969441-33 EC: 203-983-6 CAS: 112-54-9	<1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317	-	[1]
UNDECENAL	REACH #: 01-2120116228-63 EC: 215-656-5 CAS: 1337-83-3	≤0.3	Skin Sens. 1B, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	M [Acute] = 10	[1]
GAMMA-TERPINENE	EC: 202-794-6 CAS: 99-85-4	≤0.3	Flam. Liq. 3, H226 Eye Irrit. 2, H319 Repr. 2, H361 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	-	[1]
MENTHONE	REACH #: 01-2120741994-43 EC: 201-941-1 CAS: 89-80-5	≤0.3	Skin Irrit. 2, H315 Skin Sens. 1B, H317	-	[1]
2,6-dimethylhept-5-enal	EC: 203-427-2 CAS: 106-72-9	≤0.3	Skin Sens. 1B, H317 See Section 16 for the full text of the H statements declared above.	-	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : No specific fire or explosion hazard.

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SECTION 5: Firefighting measures

Hazardous combustion products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

5.3 Advice for firefighters

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

6.4 Reference to other sections

: See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

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SECTION 7: Handling and storage

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Do not store above the following temperature: 40°C (104°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Machine dishwashing (powder, liquid, tablet) for consumer use

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
2,6-DIMETHYL-7-OCTEN-2-OL	DNEL	Long term Inhalation	73.5 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	20.8 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	21.7 mg/m ³	General population [Consumers]	Systemic
	DNEL	Long term Dermal	12.5 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Oral	2.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	4.35 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	7 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	24.7 mg/m ³	Workers	Systemic
CITRONELLYL ACETATE	DNEL	Long term Oral	2.4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2.4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	4.2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	4.8 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	17 mg/m ³	Workers	Systemic

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SECTION 8: Exposure controls/personal protection

LINALOOL	DNEL	Long term Dermal	15 mg/cm ²	Workers	Local	
	DNEL	Short term Dermal	15 mg/cm ²	Workers	Local	
	DNEL	Long term Dermal	15 mg/cm ²	General population [Consumers]	Local	
	DNEL	Short term Oral	1.2 mg/kg bw/day	Workers	Systemic	
	DNEL	Long term Dermal	1.25 mg/kg bw/day	General population	Systemic	
	DNEL	Short term Dermal	1.5 mg/cm ²	General population	Local	
	DNEL	Long term Dermal	1.5 mg/cm ²	General population	Local	
	DNEL	Long term Oral	2.49 mg/kg bw/day	General population	Systemic	
	DNEL	Short term Dermal	3 mg/cm ²	Workers	Local	
	DNEL	Long term Dermal	3 mg/cm ²	Workers	Local	
	DNEL	Long term Dermal	3.5 mg/kg bw/day	Workers	Systemic	
	DNEL	Long term Inhalation	4.33 mg/m ³	General population	Systemic	
	DNEL	Long term Inhalation	24.58 mg/m ³	Workers	Systemic	
	Eucalyptol	DNEL	Long term Dermal	1 mg/kg bw/day	General population	Systemic
		DNEL	Long term Inhalation	1.74 mg/m ³	General population	Systemic
DNEL		Long term Dermal	2 mg/kg bw/day	Workers	Systemic	
DNEL		Long term Inhalation	7.05 mg/m ³	Workers	Systemic	
DNEL		Long term Oral	600 mg/kg bw/day	General population	Systemic	
HEXANAL		DNEL	Long term Oral	1.67 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1.67 mg/kg bw/day	General population	Systemic	
	DNEL	Long term Inhalation	2.9 mg/m ³	General population	Systemic	
	DNEL	Long term Dermal	4.67 mg/kg bw/day	Workers	Systemic	
	DNEL	Long term Inhalation	16.46 mg/m ³	Workers	Systemic	
	NERYL ACETATE	DNEL	Long term Oral	0.62 mg/kg bw/day	General population	Systemic
DNEL		Long term Dermal	0.62 mg/kg bw/day	General population	Systemic	
DNEL		Long term Inhalation	1.09 mg/m ³	General population	Systemic	
DNEL		Long term Dermal	1.25 mg/kg bw/day	Workers	Systemic	
DNEL		Long term Inhalation	4.4 mg/m ³	Workers	Systemic	
LAURALDEHYDE	DNEL	Long term Dermal	0.00028 mg/cm ²	General population	Local	
	DNEL	Long term Dermal	0.00057 mg/cm ²	Workers	Local	
	DNEL	Long term Oral	7 mg/kg bw/day	General population	Systemic	
	DNEL	Long term Dermal	7 mg/kg bw/day	General population	Systemic	
	DNEL	Long term Inhalation	12.3 mg/m ³	General population	Systemic	

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GAMMA-TERPINENE	DNEL	Long term Dermal	14.1 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	49.7 mg/m ³	Workers	Systemic
	DNEL	Long term Oral	0.417 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.417 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.725 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0.833 mg/kg bw/day	Workers	Systemic
MENTHONE	DNEL	Long term Inhalation	2.939 mg/m ³	Workers	Systemic
	DNEL	Long term Oral	4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	5.92 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	11.2 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	39.5 mg/m ³	Workers	Systemic
2,6-dimethylhept-5-enal	DNEL	Long term Oral	1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	1.74 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	2 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	4.35 mg/m ³	General population	Local
	DNEL	Short term Inhalation	5.22 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	7.05 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	13.04 mg/m ³	General population	Local
	DNEL	Long term Inhalation	17.63 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	21.16 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	52.89 mg/m ³	Workers	Local
	DNEL	Long term Dermal	70.83 mg/cm ²	General population	Local
	DNEL	Short term Oral	85 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	85 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	141.67 mg/cm ²	Workers	Local
	DNEL	Short term Dermal	170 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	212.5 mg/cm ²	General population	Local
	DNEL	Short term Dermal	425 mg/cm ²	Workers	Local

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SECTION 8: Exposure controls/personal protection

Product/ingredient name	Compartment Detail	Value	Method Detail
2,6-DIMETHYL-7-OCTEN-2-OL	Fresh water	27.8 µg/l	Assessment Factors
	Marine water	2.78 µg/l	Assessment Factors
	Fresh water sediment	0.594 mg/kg dw	Equilibrium Partitioning
	Marine water sediment	0.059 mg/kg dw	Equilibrium Partitioning
	Soil	0.103 mg/kg dw	Equilibrium Partitioning
	Secondary Poisoning	111 mg/kg	Assessment Factors

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : EN 16523-1:2015
 Tested for protection against chemical permeation.
 Low chemical resistant or waterproof gloves.
 (EN 16523-1:2015 supersedes EN 374-3:2003)
 EN 374-2:2003
 Tested for protection against liquid penetration and micro-organisms.
 EN 388:2003
 Tested for protection against mechanical risks (abrasion, blade cut resistance, tear resistance and puncture resistance).
 ISO 374-1:2016/Type A
 Protective glove with permeation resistance of at least 30 minutes each for at least 6 test chemicals.
 ISO 374-1:2016/Type B
 Protective glove with permeation resistance of at least 30 minutes each for at least 3 test chemicals.
 ISO 374-1:2016/Type C
 Protective glove with permeation resistance of at least 10 minutes for at least 1 test chemical. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

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SECTION 8: Exposure controls/personal protection

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.
Colour : Clear. Yellow and green.
Odour : Fruity. Aldehyde-like.
Melting point/freezing point : Not relevant/applicable due to nature of the product.
Initial boiling point and boiling range : Not relevant/applicable due to nature of the product.
Flammability (solid, gas) : Not relevant/applicable due to nature of the product.
Upper/lower flammability or explosive limits : Not relevant/applicable due to nature of the product.
Flash point : Closed cup: 71 to 72°C (159.8 to 161.6°F)
Auto-ignition temperature : Not relevant/applicable due to nature of the product.
Decomposition temperature : Not relevant/applicable due to nature of the product.
pH : Not available. Not available.
Viscosity : Not relevant/applicable due to nature of the product.
Solubility in water : Not relevant/applicable due to nature of the product.
Partition coefficient: n-octanol/water : Not relevant/applicable due to nature of the product.
Vapour pressure : 0.017 kPa (0.12579 mm Hg)
Density : 1.00518 g/cm³
Vapour density : Not relevant/applicable due to nature of the product.
Particle characteristics
Median particle size : Not relevant/applicable due to nature of the product.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability : The product is stable.
10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid : No specific data.
10.5 Incompatible materials : No specific data.
10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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SECTION 11: Toxicological information

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

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2,6-DIMETHYL-7-OCTEN-2-OL	LD50 Dermal	Rabbit	>5000 mg/kg	-
CITRONELLYL ACETATE LINALOOL	LD50 Oral	Rat	3600 mg/kg	-
	LD50 Oral	Rat	6800 mg/kg	-
	LD50 Dermal	Rabbit	5610 mg/kg	-
	LD50 Dermal	Rat	5610 mg/kg	-
Eucalyptol	LD50 Oral	Rat	2790 mg/kg	-
	LD50 Oral	Rat	2480 mg/kg	-
ETHYL 2,2-DIMETHYLHYDROCINNAMAL	LD50 Dermal	Rabbit	>5 g/kg	-
HEXANAL	LD50 Oral	Rat	4890 mg/kg	-
NERYL ACETATE	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	>5 g/kg	-
LAURALDEHYDE	LD50 Oral	Rat	23 g/kg	-
GAMMA-TERPINENE	LD50 Oral	Rat	3650 mg/kg	-
MENTHONE	LD50 Oral	Rat	500 mg/kg	-
2,6-dimethylhept-5-enal	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	>5 g/kg	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
2,6-DIMETHYL-7-OCTEN-2-OL	3600	N/A	N/A	N/A	N/A
CITRONELLYL ACETATE	6800	N/A	N/A	N/A	N/A
LINALOOL	2790	5610	N/A	N/A	N/A
Eucalyptol	2480	N/A	N/A	N/A	N/A
HEXANAL	4890	N/A	N/A	N/A	N/A
LAURALDEHYDE	23000	N/A	N/A	N/A	N/A
GAMMA-TERPINENE	3650	N/A	N/A	N/A	N/A
MENTHONE	2500	N/A	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2,6-DIMETHYL-7-OCTEN-2-OL	Eyes - Mild irritant	Rabbit	-	7.5 %	-
	Skin - Mild irritant	Rabbit	-	4 hours 0.5 MI	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
CITRONELLYL ACETATE	Skin - Mild irritant	Human	-	48 hours 20 mg	-
LINALOOL	Eyes - Moderate irritant	Rabbit	-	1 hours 0.1 MI	-
	Eyes - Moderate irritant	Rabbit	-	100 uL	-
	Skin - Mild irritant	Human	-	72 hours 32 %	-
	Skin - Mild irritant	Man	-	48 hours 16 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Moderate irritant	Guinea pig	-	24 hours 100 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 100	-

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SECTION 11: Toxicological information

HEXANAL	Eyes - Mild irritant	Rabbit	-	mg 24 hours 500	-
	Skin - Mild irritant	Rabbit	-	mg 24 hours 500	-
LAURALDEHYDE	Skin - Mild irritant	Human	-	mg 48 hours 5	-
	Skin - Moderate irritant	Rabbit	-	mg 24 hours 500	-
GAMMA-TERPINENE	Skin - Moderate irritant	Rabbit	-	mg 24 hours 500	-

Conclusion/Summary

- Skin** : Causes skin irritation. Calculation method
- Eyes** : Based on available data, the classification criteria are not met.
- Respiratory** : Based on available data, the classification criteria are not met.

Sensitisation

Conclusion/Summary

- Skin** : Based on available data, the classification criteria are not met.
- Respiratory** : Based on available data, the classification criteria are not met.

Mutagenicity

- Conclusion/Summary** : Based on available data, the classification criteria are not met.

Carcinogenicity

- Conclusion/Summary** : Based on available data, the classification criteria are not met.

Reproductive toxicity

- Conclusion/Summary** : Based on available data, the classification criteria are not met.

Teratogenicity

- Conclusion/Summary** : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Product/ingredient name	Result
GAMMA-TERPINENE	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation.
- Ingestion** : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : No specific data.

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SECTION 11: Toxicological information

- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

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

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

- Conclusion/Summary** : Based on available data, the classification criteria are not met.
- General** : No known significant effects or critical hazards.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
LINALOOL	Acute EC50 36.7 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 28.8 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
Eucalyptol	Acute LC50 102000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
HEXANAL	Acute LC50 5.5 mg/l Marine water	Crustaceans - Americamysis bahia - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 5.6 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
GAMMA-TERPINENE	Acute LC50 14 mg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute EC50 3.45 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours

- Conclusion/Summary** : Based on available data, the classification criteria are not met.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
LINALOOL	-	62.4 % - Readily - 28 days	-	-

- Conclusion/Summary** : 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.

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SECTION 12: Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
LINALOOL	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2,6-DIMETHYL-7-OCTEN-2-OL	3.25	-	low
LINALOOL	2.84	-	low
Eucalyptol	2.74	-	low
HEXANAL	1.78	-	low
NERYL ACETATE	3.98	-	low
GAMMA-TERPINENE	4.5	-	high

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

European waste catalogue (EWC)

Waste code	Waste designation
20 01 29*	detergents containing hazardous substances

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

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SECTION 13: Disposal considerations

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

For long distance transport of bulk material or shrunk pallet take into consideration sections 7 and 10.

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

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

[EU Regulation \(EC\) No. 1907/2006 \(REACH\)](#)

[Annex XIV - List of substances subject to authorisation](#)

[Annex XIV](#)

None of the components are listed.

[Substances of very high concern](#)

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : None.

[Other EU regulations](#)

[Ozone depleting substances \(1005/2009/EU\)](#)

Not listed.

[Prior Informed Consent \(PIC\) \(649/2012/EU\)](#)

Not listed.

[Persistent Organic Pollutants](#)

Not listed.

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SECTION 15: Regulatory information

Seveso Directive

This product is not controlled under the Seveso Directive.

15.2 Chemical safety assessment : No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Irrit. 2, H315	Calculation method

Full text of abbreviated H statements

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H361	Suspected of damaging fertility or the unborn child.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Repr. 2	REPRODUCTIVE TOXICITY - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1B	SKIN SENSITISATION - Category 1B

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Version : 1

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.