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

1.1. Product identifier

Product code : Hygienfresh Essenza Fresh Lavender
Trades code : A48-022
Product line: Hygienfresh

UFI: W9Y1-A0Q2-E00Y-Y5NY

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

Perfumed essence for washing in water and for washing with perchlorine
Sectors of use:
Industrial Manufacturing[SU3], Public domain (administration, education, entertainment, services, craftsmen)[SU22]

Uses advised against
Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

Tintolav s.r.l. - Via M. D' Antona 7 - 10028 Trofarello (TO) Tel. 011/649.68.27 Fax 011/649.67.42

Email: info@tintolav.com - Sito internet: www.tintolav.com

Email tecnico competente: a.conedera@tintolav.com

National contact: Malta: Emergency Ambulance 112
Accident & Emergency Department 2545 4030

1.4. Emergency telephone number

The UK National Poisons Emergency number +44 (0)870 600 6266
London: Emergency 24 hour telephone +44 (0) 207188 0100

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:
GHS05, GHS07, GHS09

Hazard Class and Category Code(s):
Acute Tox. 4, Skin Irrit. 2, Skin Sens. 1A, Eye Dam. 1, Aquatic Chronic 2

Hazard statement Code(s):
H302 - Harmful if swallowed.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H411 - Toxic to aquatic life with long lasting effects.

Harmful product: do not ingest
If brought into contact with the skin, the product causes significant inflammation with erythema, scabs, or edema.
The product, if brought into contact with skin can cause skin sensitization.
If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

The product is dangerous to the environment as it is toxic to aquatic life with long lasting effects

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:

Pictogram, Signal Word Code(s):
GHS05, GHS07, GHS09 - Danger

Hazard statement Code(s):
H302 - Harmful if swallowed.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H411 - Toxic to aquatic life with long lasting effects.

Supplemental Hazard statement Code(s):
not applicable

Precautionary statements:
Prevention
P261 - Avoid breathing vapours.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
Response
P301+P312 - IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P302+P352 - IF ON SKIN: Wash with plenty of water and soap.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER/doctor/physician
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
Disposal
P501 - Dispose of contents / container in accordance with local and national regulations.

Contains:
parfum, trideceth-12, ricinus communis oil, ethoxydiglycol, 4-tert-Butylcyclohexyl acetate, Alpha isomethyl ionone, tetramethyl acetyloctahydronaphthalenes, Geraniol, Phenethyl alcohol, Citronellol, Linalool, Coumarin, Eugenol, Limonene, Hexyl cinnamal, Isoeugenolo, citral.

Contains (Reg.EC 648/2004):
>= 15% < 30% perfumes, non-ionic surfactants,< 5% 3-methyl-4-(2,6,6-trimethylcyclohex-2-enyl)but-3-en-2-one, Geraniol, Citronellol, Linalool, Coumarin, Eugenol, α-Hexylcinnamaldehyde, Isoeugenol, citral, dipentene

Contains (Reg.CE 648/2004):
> 30% Fragrances, 15% < 30% Non-ionic surfactants, < 5% Alpha isomethyl ionone, Geraniol, Citronellol, Linalool, Coumarin, Eugenol, Limonene, Hexyl cinnamal, Isoeugenol, citral

For professional use only

UFI: W9Y1-A0Q2-E00Y-Y5NY

2.3. Other hazards

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100

No information on other hazards

SECTION 3. Composition/information on ingredients

3.1 Substances

Irrilevant

3.2 Mixtures

Refer to paragraph 16 for full text of hazard statements

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACh
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy; Isotridecanol, ethoxylated - FEMA 0	>= 25 < 35%	Acute Tox. 4, H302; Eye Dam. 1, H318	ND	24938-91-8	ND	ND
Cyclohexyl salicylate - FEMA 0	>= 5 < 15%	Aquatic Acute 1, H400; Aquatic Chronic 1, H410 1 1 ATE oral = 2.000,0 mg/kg ATE dermal = 2.000,0 mg/kg	ND	25485-88-5	400-410-3	ND
2,6-dimethyloct-7-en-2-ol - FEMA 0	>= 1 < 5%	Skin Irrit. 2, H315; Eye Irrit. 2, H319 ATE oral = 3.600,0 mg/kg ATE dermal = 5.000,0 mg/kg	ND	18479-58-8	242-362-4	01-2119457274-37
4-tert-Butylcyclohexyl acetate - FEMA 0	>= 1 < 5%	Skin Sens. 1B, H317; Aquatic Chronic 2, H411 1 1 ATE oral = 5.000,0 mg/kg ATE dermal = 5.000,0 mg/kg	ND	32210-23-4	250-954-9	01-2119976286-24
3-methyl-4-(2,6,6-trimethylcyclohex-2-enyl)but-3-en-2-one - FEMA 2714	>= 1 < 5%	Skin Irrit. 2, H315; Skin Sens. 1, H317; Eye Irrit. 2, H319; Aquatic Chronic 2, H411 ATE oral = 5.000,0 mg/kg ATE dermal = 5.000,0 mg/kg	ND	127-51-5	204-846-3	ND
1-(2,3,8,8-Tetramethyl-1,2,3,4,5,6,7,8-octahydronaphthalen-2-yl)ethanone - FEMA 0	>= 1 < 5%	Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Chronic 1, H410 1 1 ATE oral = 5.000,0 mg/kg	ND	54464-57-2	259-174-3	01-2119489989-04

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACh
		ATE dermal = 5.000,0 mg/kg				
Geraniol - FEMA 2507	>= 0,1 < 1%	Skin Irrit. 2, H315; Skin Sens. 1, H317; Eye Dam. 1, H318 ATE oral = 3.500,0 mg/kg ATE dermal = 5.000,0 mg/kg ATE inhal = 0,5mg/l/4 h	603-241-00-5	106-24-1	203-377-1	01-2119552 430-49-000 0
Citronellol	>= 0,1 < 1%	Skin Irrit. 2, H315; Skin Sens. 1B, H317; Eye Irrit. 2, H319; STOT SE 3, H335 ATE oral = 3.450,0 mg/kg ATE dermal = 2.650,0 mg/kg ATE inhal = 1,3mg/l/4 h	ND	106-22-9	203-375-0	01-2119453 995-23-000 0
Linalool	>= 0,1 < 1%	Skin Irrit. 2, H315; Skin Sens. 1B, H317; Eye Irrit. 2, H319 ATE oral = 2.790,0 mg/kg ATE dermal = 5.610,0 mg/kg ATE inhal = 307,0mg/l/4 h	603-235-00-2	78-70-6	201-134-4	01-2119474 016-42-000 0
2-Methylundecanal - FEMA 2749	>= 0,1 < 1%	Skin Irrit. 2, H315; Skin Sens. 1B, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 1 1 ATE oral = 5.000,0 mg/kg ATE dermal = 10.000,0 mg/kg	ND	110-41-8	203-765-0	01-2119969 443-29-000 0
Eucalyptus globulus oil - FEMA 2466	>= 0,1 < 1%	Flam. Liq. 3, H226; Asp. Tox. 1, H304; Skin Sens. 1, H317; Aquatic Chronic 2, H411 1 1	ND	8000-48-4	283-406-2	ND
[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8, 8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)etha n-1-one - FEMA 0	>= 0,1 < 1%	Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 1 1 ATE oral = 5.000,0 mg/kg ATE dermal = 5.000,0 mg/kg	ND	32388-55-9	251-020-30	01-2119969 651-28-xxxx
4-Methyl-3-decen-5-ol - FEMA 0	>= 0,1 < 1%	Aquatic Acute 1, H400; Aquatic Chronic 2, H411 1 1	ND	81782-77-6	279-815-0	01-2119983 528-21

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACh
		ATE oral = 5.000,0 mg/kg				
2,4-dimethylcyclohex-3-ene-1-carbaldehyde - FEMA 0	>= 0,1 < 1%	Skin Irrit. 2, H315; Skin Sens. 1, H317; Eye Irrit. 2, H319; Aquatic Chronic 3, H412 1 1 ATE oral = 4.000,0 mg/kg ATE dermal = 5.000,0 mg/kg	ND	68039-49-6	268-264-1	ND
Coumarin	>= 0,1 < 1%	Acute Tox. 4, H302; Skin Sens. 1, H317; STOT RE 2, H373 ATE oral = 293,0 mg/kg ATE dermal = 242,0 mg/kg	ND	91-64-5	202-086-7	01-2119943756-26-0000
Eugenol	>= 0,1 < 1%	Skin Sens. 1B, H317; Eye Irrit. 2, H319 ATE oral = 2.000,0 mg/kg	ND	97-53-0	202-589-1	01-2119971802-33-0000
cineole - FEMA 2465	>= 0,1 < 1%	Flam. Liq. 3, H226; Skin Sens. 1B, H317 ATE oral = 2.480,0 mg/kg ATE dermal = 5.000,0 mg/kg	ND	470-82-6	207-431-5	01-2119967772-24
Isoeugenol	>= 0,01 < 0,1%	Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1A, H317; Eye Irrit. 2, H319 Limits: Skin Sens. 1A, H317 %C >=0,01;	604-094-00-X	97-54-1	202-590-7	ND

SECTION 4. First aid measures

4.1. Description of first aid measures

Inhalation:
Air the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated room. CALL A PHYSICIAN.
If breathing has stopped, give artificial respiration.

Direct contact with skin (of the pure product).:
Take contaminated clothing Immediately off.
Wash immediately with plenty of running water and possibly with soap, the areas of the body that have, or are only suspected to have, come in contact with the product.
In case of contact with skin, wash immediately with water and soap.

Direct contact with eyes (of the pure product).:
Wash immediately and thoroughly with running water, keeping eyelids open for at least 10 minutes, then protect your eyes with a dry sterile gauze. Seek medical advice immediately
Do not use eye drops or ointments of any kind before the examination or advice from an oculist.

Ingestion:

The product is harmful and can cause irreversible damages even following a single exposure if swallowed.
Absolutely do not induce vomiting or emesis. Seek medical advice immediately.

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

No data available.

4.3. Indication of any immediate medical attention and special treatment needed

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
If skin irritation occurs: Get medical advice/attention.

SECTION 5. Firefighting measures

5.1. Extinguishing media

Advised extinguishing agents:
Water spray, CO2, foam, dry chemical, depending on the materials involved in the fire.

Extinguishing means to avoid:
Water jets. Use water jets only to cool the surfaces of the containers exposed to fire.

5.2. Special hazards arising from the substance or mixture

No data available.

5.3. Advice for firefighters

Use protection for the breathing apparatus
Safety helmet and full protective suit.
The spray water can be used to protect the people involved in the extinction
You may also use selfrespirator, especially when working in confined and poorly ventilated area and if you use halogenated extinguishers (Halon 1211 fluobrene, Solkan 123, NAF, etc...)
Keep containers cool with water spray

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:
Leave the area surrounding the spill or release. Do not smoke
Wear mask, gloves and protective clothing.

6.1.2 For emergency responders:
Wear protective gloves and clothing.
Eliminate all open flames and possible sources of ignition.
Not smoking.
Provide adequate ventilation.
Evacuate the danger area and, if necessary, consult an expert.

6.2. Environmental precautions

Contain spill with earth or sand.
If the product has entered a watercourse in sewers or has contaminated soil or vegetation, notify it to the authorities.
Discharge the remains in compliance with the regulations

6.3. Methods and material for containment and cleaning up

6.3.1 For containment:
Rapidly recover the product, wear a mask and protective clothing
Recover the product for reuse, if possible, or for removal. Possibly absorb it with inert material.
Prevent it from entering the sewer system.

6.3.2 For cleaning up:
After wiping up, wash with water the area and materials involved

6.3.3 Other information:
None in particular.

6.4. Reference to other sections

Refer to paragraphs 8 and 13 for more information

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Avoid contact and inhalation of vapors
Wear protective gloves/protective clothing/eye protection/face protection.
In residential areas do not use on large surfaces.
At work do not eat or drink.
Do not eat, drink or smoke when using this product.
Contaminated work clothing should not be allowed out of the workplace.
See also paragraph 8 below.

7.2. Conditions for safe storage, including any incompatibilities

Keep in original container closed tightly. Do not store in open or unlabeled containers.
Keep containers upright and safe by avoiding the possibility of falls or collisions.
Store in a cool place, away from sources of heat and `direct exposure of sunlight.

7.3. Specific end use(s)

Industrial Manufacturing:
Handle with extreme caution.
Store in a well ventilated place away from heat sources.

Public domain (administration, education, entertainment, services, craftsmen):
Handle with care. Store in a ventilated area and away from heat, keep the container tightly closed.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

- Substance: Geraniol
DNEL
Systemic effects Long term Workers inhalation = 161,6 (mg/m3)

- Substance: Citronellol
DNEL
Systemic effects Long term Workers inhalation = 161,6 (mg/m3)

- Substance: Linalool
DNEL
Systemic effects Long term Workers inhalation = 2,8 (mg/m3)
Systemic effects Long term Workers dermal = 2,5 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 0,7 (mg/m3)
Systemic effects Long term Consumers dermal = 1,25 (mg/kg bw/day)
Systemic effects Long term Consumers oral = 0,2 (mg/kg bw/day)

- Substance: 1-(2,3,8,8-Tetramethyl-1,2,3,4,5,6,7,8-octahydronaphthalen-2-yl)ethanone
DNEL
Systemic effects Long term Workers inhalation = 1,76 (mg/m3)
Systemic effects Long term Workers dermal = 1,73 (mg/kg bw/day)
Systemic effects Short term Workers inhalation = 1,76 (mg/m3)
Systemic effects Short term Workers dermal = 1,73 (mg/kg bw/day)
PNEC
Sweet water = 0,0028 (mg/l)
sediment Sweet water = 3,73 (mg/kg/sediment)
Sea water = 0,00028 (mg/l)
sediment Sea water = 0,75 (mg/kg/sediment)
ground = 0,705 (mg/kg ground)

- Substance: benzyl acetate
DNEL
Systemic effects Long term Workers inhalation = 21,9 (mg/m3)
Systemic effects Long term Workers dermal = 6,25 (mg/kg bw/day)
Systemic effects Long term Consumers inhalation = 5,5 (mg/m3)
Systemic effects Long term Consumers dermal = 3,125 (mg/kg bw/day)
Systemic effects Long term Consumers oral = 3,125 (mg/kg bw/day)

- Substance: 3-(4-Isobutyl-2-methylphenyl)propanal
PNEC
Sweet water = 0,0064 (mg/l)
sediment Sweet water = 1,3 (mg/kg/sediment)
Sea water = 0,00064 (mg/l)
sediment Sea water = 0,13 (mg/kg/sediment)
intermittent emissions = 0,0101 (mg/l)
STP = 1 (mg/l)
ground = 0,256 (mg/kg ground)

- Substance: α-Hexylcinnamaldehyde
DNEL
Systemic effects Long term Workers inhalation = 0,000078 (mg/m3)
Systemic effects Short term Workers inhalation = 0,00628 (mg/m3)
PNEC
Sweet water = 0,03 (mg/l)
sediment Sweet water = 47,7 (mg/kg/sediment)
Sea water = 0,003 (mg/l)
sediment Sea water = 4,77 (mg/kg/sediment)
ground = 9,51 (mg/kg ground)

8.2. Exposure controls

Appropriate engineering controls:
Industrial Manufacturing:
No specific monitoring foreseen

Public domain (administration, education, entertainment, services, craftsmen):

No specific monitoring foreseen

Individual protection measures:

(a) Eye / face protection
When handling the pure product use safety glasses (spectacles cage) (EN 166).

(b) Skin protection

(i) Hand protection
Handle with gloves. Gloves must be checked before use. Use a technique suitable for removing gloves (without touching the outer surface of the glove) to avoid the skin contact with this product Dispose of contaminated gloves after use in accordance with current legislation and good laboratory practices. Wash and dry your hands.
The selected protective gloves have to satisfy the requirements of EU directive 89/686 / EEC e the resulting EN 374 standards.
Full contact
Material: Nitrile rubber
minimum thickness: 0.11 mm
breakthrough time: 480 min
The choice of an appropriate glove depends not only on the material but also on other quality characteristics which vary from one manufacturer to another.
For the choice of the type of gloves to use consult the supplier / manufacturer of the gloves.
Observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.

(ii) Other
When handling the pure product wear full protective skin clothing.

(c) Respiratory protection
Not needed for normal use.

(d) Thermal hazards
No hazard to report

Environmental exposure controls:
Use according to good working practices to avoid pollution into the environment.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method
Physical state	Liquid	
Colour	straw yellow	
Odour	Characteristic	
Odour threshold	not determined	
Melting point/freezing point	not determined	
Boiling point or initial boiling point and boiling range	not determined	
Flammability	nonflammable	
Lower and upper explosion limit	not determined	
Flash point	> 65 °C	ASTM D92
Auto-ignition temperature	not determined	

Physical and chemical properties	Value	Determination method
Decomposition temperature	not determined	
pH	not determined	
Kinematic viscosity	not determined	
Solubility	not determined	
Water solubility	Completely soluble in water	
Partition coefficient n-octanol/water (log value)	not determined	
Vapour pressure	not determined	
Density and/or relative density	0,980 - 1,020 g/cm3	
Relative vapour density	not determined	
Particle characteristics	not determined	

9.2. Other information

Content of VOC ready to use condition: 22,74 %

9.2.1 Information with regard to physical hazard classes

Irrilevant

9.2.2 Other safety characteristics

Irrilevant

SECTION 10. Stability and reactivity

10.1. Reactivity

No reactivity hazards

10.2. Chemical stability

No hazardous reaction when handled and stored according to provisions.

10.3. Possibility of hazardous reactions

There are no hazardous reactions

10.4. Conditions to avoid

Nothing to report

10.5. Incompatible materials

It can ignite in contact with oxidants mineral acids.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION 11. Toxicological information

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

ATE(mix) oral = 1.740,9 mg/kg
ATE(mix) dermal = ∞
ATE(mix) inhal = ∞

(a) acute toxicity: Harmful product: do not ingest
Cyclohexyl salicylate: Oral, rat, LD50 : > 2000 mg/kg
2,6-dimethyloct-7-en-2-ol: LD50 Oral - rat - 3,600 mg/kg
LD50 Dermal - rabbit - > 5,000 mg/kg
4-tert-Butylcyclohexyl acetate: Rats (10 per dose, sex and strain not reported) were administered 4-tert-butylcyclohexyl acetate by gavage at 5000 mg/kg-bw. No information on mortality was reported
Rabbits (4, sex and strain not reported) were administered 4-tert-butylcyclohexyl acetate dermally at 5000 mg/kg-bw. One rabbit died.
1-(2,3,8,8-Tetramethyl-1,2,3,4,5,6,7,8-octahydronaphthalen-2-yl)ethanone: TOXIC DOSE 1-LD > 50 5000 mg/kg (oral rat)
TOXIC DOSE 2-LD > 50 5000 mg/kg (skn-rbt)
Geraniol: LD50 Oral (rat) (mg / kg body weight) = 3500
LD50 Dermal (rabbit) (mg / kg body weight) => 5000
LC50 Inhalation (rat) of vapor / dust / aerosol / smoke (mg / l / 4h): 0.5
Citronellol: orl-rat LD50:3450 mg/kg
skn-rbt LD50:2650 mg/kg
ihl-rat LCLo:1.3 mg/m3/4H
[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one: LD50 rat Dose: > 5.000 mg/kg
LD50 rabbit Dose: > 5.000 mg/kg
2,4-dimethylcyclohex-3-ene-1-carbaldehyde: LD 50 ORAL (mg/kg) : >4000
ORGANISM : RAT

LD 50 DERMAL (mg/kg) : >5000
ORGANISM : RABBIT
(b) skincorrosion/irritation: If brought into contact with the skin, the product causes significant inflammation with erythema, scabs, or edema.
Cyclohexyl salicylate: Non-irritant for skin. (OECD 404)
2,6-dimethyloct-7-en-2-ol: Skin - rabbit
Result: Mild skin irritation - 24 h
(Draize Test)
4-tert-Butylcyclohexyl acetate: Rabbits (species, sex and number not specified) were administered 4-tert-butylcyclohexyl acetate dermally to the ears and backs. Observations of the backs included slight erythema after 1 and 5 min, severe erythema and slight edema at 15 min, and severe erythema and edema at 20 hours. On day 8, slight redness and severe scaling were observed. Observations of the ears included severe erythema and edema with blistering after 20 hours. Severe necrosis was recorded on day 8. (Bhatia, S.P., et al., Food and Chemical Toxicology 46 (2008) S36-S41) 4-tert-Butylcyclohexyl acetate was irritating to rabbit skin
Geraniol: skn-rbt 100 mg/24H SEV
skn-gpg 100 mg/24H SEV
skn-man 16 mg/24H SEV
Citronellol: skn-rbt 100 mg/24H SEV
Skin - Human - Skin irritation - 48 h
[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one: rabbit
Result: Skin irritation
Exposure time: 12:0 am
2,4-dimethylcyclohex-3-ene-1-carbaldehyde: TEST : ACUTE DERMAL IRRITATION
ORGANISM : RABBIT

(c) serious eye damage/irritation: If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

Geraniol: Eyes-rabbit
Result: Risk of serious damage to eyes. -12:00 am
(Directive 67/548/EEC, Annex V, b. 5.)

Cyclohexyl salicylate: Non-irritating to the eye. (OECD 405)

2,6-dimethyloct-7-en-2-ol: Eyes - rabbit
Result: Moderate eye irritation
(Draize Test)

4-tert-Butylcyclohexyl acetate: Albino rabbits (3/sex dose not specified) were instilled 0.1 mL aliquot of 0.625% solution (vehicle not reported) into the right eye of each rabbit with no further treatment while the left eye served as control. Scores were recorded according to the Draize scale. Slight to moderate irritation with conjunctival chemosis and discharge were observed in all three rabbits (mean score for redness and 1.9 for 1 chemosis). All eyes cleared by day 4. (Bhatia, S.P., et al., Food and Chemical Toxicology 46 (2008) S36-S41) 4-tert-Butylcyclohexyl acetate was irritating to rabbit eyes.

(d) respiratoryorskinsensitisation: The product, if brought into contact with skin can cause skin sensitization.

2,6-dimethyloct-7-en-2-ol: Maximisation Test
Did not cause sensitisation on laboratory anima

Geraniol: Guinea pig
May cause sensitisation by skin contact.

Citronellol: mouse - May cause sensitization by skin contact.

[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one:
Maximisation study human
Result: Did not cause sensitization on laboratory animals.
Test substance: 30% in petrolatum

2,4-dimethylcyclohex-3-ene-1-carbaldehyde: SENSITIZATION (ANIMAL): SENSITIZING
TEST : SKIN SENSITIZATION
ORGANISM : GUINEA PIG

SENSITIZATION (HUMAN) : NOT SENSITIZING
TEST : HRIPT
AT 10.00 (%) IN PETLM

Coumarin: Test: Inhalation Sesitization Route: Inhalation Species: Rat = 293 mg/kg
Test: Inhalation Sesitization Route: Inhalation Species: Mouse = 196 mg/kg

(e) germ cell mutagenicity: Cyclohexyl salicylate: Non-mutagenic (OECD 471)

4-tert-Butylcyclohexyl acetate: Salmonella typhimurium strains TA98, TA100, TA1535, TA1537 and Ta 1538 were exposed to 4-tert-butylcyclohexyl acetate at 8 to 5000 g/plate in a bacterial reverse mutation assay in the presence and absence of metabolic activation. Positive and negative controls were used but their response was not provided. Cytotoxicity was observed at and above 200 g/plate.
4-tert-Butylcyclohexyl acetate was not mutagenic in this assay.

(f) carcinogenicity: Geraniol: No component of this product present at levels greater than or equal to 0.1% is identified as
probable, possible or confirmed human carcinogen by IARC.

(g) eproductivetoxicity: based on available data, the classification criteria are not met.

(h) specific target organ toxicity (STOT) single exposure: based on available data, the classification criteria are not met.

(i) specific target organ toxicity (STOT) repeated exposure4-tert-Butylcyclohexyl acetate: In a modified developmental toxicity screening test (OCED TG 421), Crl: CD pregnant (SD) rats were administered 4-tert-butylcyclohexyl acetate (a mixture of 71% 28% trans and cis) in corn oil by gavage at 0, 40, 160 or 640 mg/kg-bw per day during gestation days 7 20. Rats were Caesarean-sectioned on day 21 of gestation and examined for number and distribution of corpora lutea, implantation sites and placenta. Live and dead fetuses and early and late resorptions were recorded. Fetuses were examined for sex ratio, gross external alterations and skeletal and soft tissue alterations. There were no effects on maternal body weights, weight gain, food consumption or organ weights. Pup viability, body weights, external observations and microscopic examination showed no significant alterations that could be related to the administration of the test substance.
NOAEL (maternal or developmental toxicity) = 640 mg/kg-bw/day (based on no effects at the highest dose tested)

(j) aspiration hazard: based on available data, the classification criteria are not met.

Related to contained substances:

Cyclohexyl salicylate:
LD50 (rat) Oral (mg/kg body weight) = 2000
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2000

2,6-dimethyloct-7-en-2-ol:
Skin - rabbit
Result: Mild skin irritation - 24 h
(Draize Test)
Eyes - rabbit
Result: Moderate eye irritation
(Draize Test)
Oral LD50 (rat) : 3600 mg/kg
Dermal LD50 (rabbit) >5000 mg/kg
LD50 (rat) Oral (mg/kg body weight) = 3600
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 5000

4-tert-Butylcyclohexyl acetate:
LD50 (rat) Oral (mg/kg body weight) = 5000
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 5000

3-methyl-4-(2,6,6-trimethylcyclohex-2-enyl)but-3-en-2-one:
LD50 (rat) Oral (mg/kg body weight) = 5000
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 5000

1-(2,3,8,8-Tetramethyl-1,2,3,4,5,6,7,8-octahydronaphthalen-2-yl)ethanone:
LD50 (rat) Oral (mg/kg body weight) = 5000
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 5000

Geraniol:
LD50 (rat) Oral (mg/kg body weight) = 3500
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 5000
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 0,5

Citronellol:
LD50 (rat) Oral (mg/kg body weight) = 3450
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2650
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 1,3

Linalool:
LD50 (rat) Oral (mg/kg body weight) = 2790
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 5610
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 307

2-Methylundecanal:
LD50 Oral - rat -> 5.000 mg / kg
DL50 Dermal - rabbit -> 10,000 mg / kg
LD50 (rat) Oral (mg/kg body weight) = 5000
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 10000

[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one:
LD50 (rat) Oral (mg/kg body weight) = 5000
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 5000

4-Methyl-3-decen-5-ol:
LD50 (rat) Oral (mg/kg body weight) = 5000

2,4-dimethylcyclohex-3-ene-1-carbaldehyde:
LD50 (rat) Oral (mg/kg body weight) = 4000
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 5000

Coumarin:
Acute oral LD50 for rats: 293mg/kg
Acute oral LD50 for mice: 196mg/kg
Irritant date: Not determined
Inhalation data: Not determined
Mutagenicity data: Not determined
LD50 (rat) Oral (mg/kg body weight) = 293
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 242

Eugenol:
LD50 (rat) Oral (mg/kg body weight) = 2000

cineole:
LD50 (rat) Oral (mg/kg body weight) = 2480
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 5000

11.2. Information on other hazards

No data available.

SECTION 12. Ecological information

12.1. Toxicity

Related to contained substances:
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy; Isotridecanol, ethoxylated:
Acute toxicity to fish
LC50 - 96 h : 7.5 mg/l - Lepomis macrochirus (Bluegill sunfish)
Harmful to fish.

LC50 - 96 h : 12 mg/l - Danio rerio (zebra fish)
Method: OECD Test Guideline 203
Harmful to fish.

Acute toxicity to daphnia and other aquatic invertebrates.
Tridecyl alcohol ethoxylated : LC50 - 48 h : 4.7 mg/l - Daphnia magna (Water flea)
Method: OECD Test Guideline 202
Toxic to aquatic invertebrates.

Toxicity to aquatic plants
Tridecyl alcohol ethoxylated : ErC50 - 72 h : 17 mg/l - Scenedesmus subspicatus
Harmful to algae.

C(E)L50 (mg/l) = 4,7 1
1

Cyclohexyl salicylate:
Brachydanio rerio (zebra fish), 96h, LC50 : 1 to 10 mg/L
Algae, 48h, IC50 : < 1 mg/L
Daphnia magna, 48h, EC50 : 1 to 10 mg/L
C(E)L50 (mg/l) = 1,1 1
1

2,6-dimethyloct-7-en-2-ol:

96 Hour LC50 = 4.81 mg/l EPA ECOSAR
Daphnia magna 48 hrs LC50 = 5.70 mg
Green algae 96 hr NOEC, LOEC or NOEL, LOEL EC50 = 3.88 mgl
C(E)L50 (mg/l) = 4,81 1
1

4-tert-Butylcyclohexyl acetate:
Golden ide (Leuciscus idus) were exposed to 4-tert-butylcyclohexyl acetate at nominal concentrations of 0, 10, 13, 16 and 20 mg/L under static conditions for 48 hours. EF Marlowet was used as a solubilizer. Mortality was 0, 10, 100 and 80% at 10, 13, 16 and 20 mg/L.
48-h LC50 = 14 mg/L
Water fleas (Daphnia magna) were exposed to 4-tert-butylcyclohexyl acetate at nominal concentrations of 2.8 to 28.4 mg/L (measured concentrations, 2.4 to 28.4 mg/L) under static conditions for 48 hours.
48-h EC50 = 23.4 mg/L
C(E)L50 (mg/l) = 14 1
1

3-methyl-4-(2,6,6-trimethylcyclohex-2-enyl)but-3-en-2-one:
Rainbow Trout (average length, 5.8 cm), acclimatized for 12 days, were exposed to a series of 5 test concentrations of 0, 7.8, 10.9, 15.3, 21.4, or 30 mg/L dispersed in Polysorbate 80 (10 mg/L) for 96 hours at 17.1 °C. Control fish were exposed to Polysorbate 80 (10 mg/L). Fish were observed twice daily for mortality and symptoms. pH values and water temperature were monitored after substance addition at 24 hour intervals. Dissolved oxygen was measured at the beginning of the experiment and at 96 hours.
LC50 = 10.9 mg/L
Daphnia magna 48h - LC50 = 0.597 mg/L
72 hr EC50=7.47 mg/L based on average specifc growth rate;
C(E)L50 (mg/l) = 0,597

1-(2,3,8,8-Tetramethyl-1,2,3,4,5,6,7,8-octahydronaphthalen-2-yl)ethanone:
Endpoint: LC50 species: lepomismacrochirus (fish-salt Bluegrill) = 1.30 mg/l-h Duration: 96-Note:: method: OECD 203 TG
Endpoint: EC50-species: Daphnia magna (Water flea) = 1.38 mg/l-h Duration: 48-comments:: semi-static test method: OECD TG 202
Endpoint: EC50 Desmodesmus subspicatus-species (green algae) = 2.60 mg/l-h Duration: 72-
Note:: static test method: OECD TG201
C(E)L50 (mg/l) = 1,3 1
1

Geraniol:
static test LC50-zebrafish (zebra fish)-ca. 22 mg/l-96 h (OECD Test Guideline 203)
Broadcast application EC50-Daphnia magna (Water flea)-10.8 mg/l-48 h (OECD Test Guideline 202)
Growth inhibition EC50-Desmodesmus subspicatus (green algae)-13.1 mg/l-72 h
C(E)L50 (mg/l) = 10,8 1
1

Citronellol:
LC50 (96 h) 14,66 mg/l, Leuciscus idus
EC50 (48 h) 17 mg/l, Daphnia magna
EC50 (72 h) 2,4 mg/l, Scenedesmus subspicatus
C(E)L50 (mg/l) = 2,4 1
1

Linalool:

Fish: 96h LC50:39 mg/L (Oryzias latipes)
Crustacea: 48h EC50:52 mg/L (Daphnia magna)
Algae: 72h EC50:28 mg/L (Selenastrum capricornutum)
C(E)L50 (mg/l) = 27,799999 1
1

Coumarin:
Toxicity to fish LC50 - Poecilia reticulata (guppy) - 56 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates LC50 - Daphnia magna (Water flea) - 3.5 mg/l - 48 h
C(E)L50 (mg/l) = 13,5 1
1

Eugenol:
Toxicity to fish Lc50-Danio rerio (zebrafish)-13 mg/l-96 h (OECD TEST GUIDELINE 203) Toxicity to daphnia and other aquatic invertebrates – Daphnia Ec50-1.13 mg/l-48 h
C(E)L50 (mg/l) = 1,13 1
1

cineole:
C(E)L50 (mg/l) = 102

The product is dangerous for the environment as it is toxic to aquatic organisms following acute exposure.

Use according to good working practices to avoid pollution into the environment.

12.2. Persistence and degradability

Related to contained substances:
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy; Isotridecanol, ethoxylated:
The substance fulfills the criteria for ultimate aerobic biodegradability and
ready biodegradability

Cyclohexyl salicylate:
Readily biodegradable (OECD 301)

2,6-dimethyloct-7-en-2-ol:
72% within 28 days in an OECD 301B assay

Geraniol:
Aerobic chemical oxygen demand:
Exposure time 3 days
Result: 80 - 100% - Easily biodegradable.
(OECD Test Guideline 301A)

Linalool:
90 % (by BOD), 99 % (by TOC), 100 % (by GC)

4-Methyl-3-decen-5-ol:
Biodegradability: Result: Readily biodegradable.
73%

12.3. Bioaccumulative potential

Related to contained substances:

Linalool:
106

Coumarin:
Bioaccumulation Leuciscus idus melanotus - 3 d -46 µg/l
Bioconcentration factor (BCF): < 10

12.4. Mobility in soil

Related to contained substances:
Geraniol:
log Pow: 3.47

Linalool:
log Pow: 2.55
Soil adsorption (Koc): 75
Henry's Law constant(PaM3/mol): 2

12.5. Results of PBT and vPvB assessment

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII

12.6. Endocrine disrupting properties

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100

12.7. Other adverse effects

No adverse effects

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Do not reuse empty containers. Dispose of them in accordance with the regulations in force. Any remaining product should be disposed of according to applicable regulations by addressing to authorized companies.
Recover if possible. Send to authorized discharge plants or for incineration under controlled conditions. Operate according to local and National rules in force

SECTION 14. Transport information

14.1. UN number or ID number

ADR/RID/IMDG/ICAO-IATA: 0000

ADR exemption because compliance with the following characteristics:
Combination packagings: per inner packaging 5 L per package 30 Kg
Inner packagings placed in skrink-wrapped or stretch-wrapped trays: per inner packaging 5 L per package 20 Kg

14.2. UN proper shipping name

ADR/RID/IMDG: MATERIA PERICOLOSA PER L'AMBIENTE, LIQUIDA, N.A.S. (Cyclohexyl salicylate, acetato di 4-terz-butilcicloesile, 3-metil-4-(2,6,6-trimetilcicloes-2-enil)but-3-en-2-one, 1',2',3',4',5',6',7',8'-ottaidro-2',3',8',8'-tetrametil-2'-acetonaftone, ACETYLCEDRENE, Coumarin, Cineolo, delta-1-(2,6,6-Trimethyl-3-cyclohexen-1-yl)-2-buten-1-one, α-Hexylcinnamaldehyde)

ADR/RID/IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Cyclohexyl salicylate, 4-tert-Butylcyclohexyl acetate, 3-methyl-4-(2,6,6-trimethylcyclohex-2-enyl)but-3-en-2-one, 1-(2,3,8,8-Tetramethyl-1,2,3,4,5,6,7,8-octahydronaphthalen-2-yl)ethanone, [3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one, Coumarin, cineole, 1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one, α-Hexylcinnamaldehyde)
ICAO-IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Cyclohexyl salicylate, 4-tert-Butylcyclohexyl acetate, 3-methyl-4-(2,6,6-trimethylcyclohex-2-enyl)but-3-en-2-one, 1-(2,3,8,8-Tetramethyl-1,2,3,4,5,6,7,8-octahydronaphthalen-2-yl)ethanone, [3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one, Coumarin, cineole, 1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one, α-Hexylcinnamaldehyde)

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO-IATA: Class : 9
ADR/RID/IMDG/ICAO-IATA: Label :
ADR: Tunnel restriction code : --
ADR/RID/IMDG/ICAO-IATA: Limited quantities : 5 L
IMDG - EmS : F-A, S-F

14.4. Packing group

ADR/RID/IMDG/ICAO-IATA: III

14.5. Environmental hazards

ADR/RID/ICAO-IATA: Product is environmentally hazardous
IMDG: Marine polluting agent : Yes

14.6. Special precautions for user

No data available.

14.7. Maritime transport in bulk according to IMO instruments

It is not intended to carry bulk

SECTION 15. Regulatory information

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

Seveso category:
E2 - ENVIRONMENTAL HAZARDS

REGULATION (EU) No 1357/2014 - waste:
HP4 - Irritant — skin irritation and eye damage
HP14 - Ecotoxic

Substances in the Candidate List (REACH Article 59)
Based on available data, no SVHC substances are present

15.2. Chemical safety assessment

The supplier has made an assessment of chemical safety

SECTION 16. Other information

16.1. Other information

Points modified compared to previous release: 2.1. Classification of the substance or mixture, 2.2. Label elements, 2.3. Other hazards, 3.2 Mixtures, 8.1. Control parameters, 8.2. Exposure controls, 9.2.1 Information with regard to physical hazard classes, 9.2.2 Other safety characteristics, 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008, 12.1. Toxicity, 12.2. Persistence and degradability, 12.3. Bioaccumulative potential, 12.6. Endocrine disrupting properties, 14.2. UN proper shipping name

Description of the hazard statements exposed to point 3
H302 = Harmful if swallowed.
H318 = Causes serious eye damage.
H400 = Very toxic to aquatic life.
H410 = Very toxic to aquatic life with long lasting effects.
H315 = Causes skin irritation.
H319 = Causes serious eye irritation.
H317 = May cause an allergic skin reaction.
H411 = Toxic to aquatic life with long lasting effects.
H335 = May cause respiratory irritation.
H226 = Flammable liquid and vapour.
H304 = May be fatal if swallowed and enters airways.
H412 = Harmful to aquatic life with long lasting effects.
H373 = May cause damage to organs through prolonged or repeated exposure .

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008

H302 - Harmful if swallowed. Classification procedure: Calculation method
H315 - Causes skin irritation. Classification procedure: Calculation method
H317 - May cause an allergic skin reaction. Classification procedure: Calculation method
H318 - Causes serious eye damage. Classification procedure: Calculation method
H411 - Toxic to aquatic life with long lasting effects. Classification procedure: Calculation method

Main normative references:
Directive 1999/45/EC
Directive 2001/60/EC
Regulation 1272/2008/EC
Regulation 2010/453/EC

** The information contained herein is based on our knowledge at the date above.
Related solely to the product and do not constitute a guarantee of a particular quality.
It is the duty of the user to ensure that these are appropriate and complete information regarding the specific use intended.
This data sheet cancels and replaces any previous edition.