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

1.1. Product identifier

Product code : Hygienfresh Essense Fior di Loto
Trades code : A80-088
Product line: Hygienfresh

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

Sectors of use:
Private households (= general public = consumers)[SU21], 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:
GHS07, GHS09

Hazard Class and Category Code(s):
Skin Irrit. 2, Skin Sens. 1B, Eye Irrit. 2, Aquatic Chronic 2

Hazard statement Code(s):
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H411 - Toxic to aquatic life with long lasting effects.

If brought into contact with eyes, the product causes significant irritations which may last for more than 24 hours, if brought into contact with skin, it causes significant inflammation with erythema, scabs, or edema
The product, if brought into contact with skin can cause skin sensitization.
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):
GHS07, GHS09 - Warning

Hazard statement Code(s):
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H411 - Toxic to aquatic life with long lasting effects.

Supplemental Hazard statement Code(s):
not applicable

Precautionary statements:
General
P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
Prevention
P261 - Avoid breathing vapours.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
Response
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.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
Disposal
P501 - Dispose of contents / container in accordance with local and national regulations.

Contains (Reg.EC 648/2004):
15-30% perfumes,< 5% Composti di ammonio quaternario, benzil-C12-16-alchildimetil, cloruri, non-ionic surfactants, cationic surfactants, Citronellol, BUTYLPHENYL METHYLPROPIONAL, a-Hexylcinnamaldehyde, Benzyl salicylate, Coumarin

Content of VOC ready to use condition: 1,92 %

2.3. Other hazards

The substance / mixture NOT contains substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

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
Fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	>= 1 < 5%			157905-74-3	931-203-0	01-2119463889-16-0004
Nopyl acetate - FEMA 0	>= 1 < 5%	Aquatic Chronic 3, H412		128-51-8	204-891-9	
benzyl acetate - FEMA 2135	>= 1 < 5%	Aquatic Chronic 3, H412		140-11-4	205-399-7	
4-tert-Butylcyclohexyl acetate - FEMA 0	>= 1 < 5%	Skin Sens. 1B, H317; Aquatic Chronic 2, H411		32210-23-4	250-954-9	
Citronellol	>= 1 < 5%	Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335		106-22-9	203-375-0	01-2119453995-23-0000
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy; Isotridecanol, ethoxylated - FEMA 0	>= 1 < 3%	Acute Tox. 4, H302; Eye Dam. 1, H318		24938-91-8		
2-(4-tert-butylbenzyl)propionaldehyde	>= 1 < 3%	Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317; Repr. 2, H361f; Aquatic Chronic 2, H411		80-54-6	201-289-8	01-2119907954-30-0000
α-Hexylcinnamaldehyde	>= 1 < 5%	Skin Sens. 1, H317; Aquatic Chronic 2, H411		101-86-0	202-983-3	
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	>= 1 < 5%	Aquatic Acute 1, H400; Aquatic Chronic 1, H410	603-212-00-7	1222-05-5	214-946-9	01-2119488227-29-0000
Terpineol - FEMA 0	>= 1 < 5%	Skin Irrit. 2, H315; Eye Irrit. 2, H319		8000-41-7	2322681	01-2119553062-49-xxxx
Reaction mass of 2-methylbutyl salicylate and pentyl salicylate	>= 0,1 < 1%	Acute Tox. 4, H302; Aquatic Acute 1, H400; Aquatic Chronic 1, H410			911-280-7	01-2119969444-27-0002
2-Methylundecanal - FEMA 2749	>= 0,1 < 1%	Skin Irrit. 2, H315; Skin Sens. 1B, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410		110-41-8	203-765-0	
2-Methyl-3-(p-isopropylphenyl)propionaldehyde - FEMA 2743	>= 0,1 < 1%	Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Chronic 2, H411		103-95-7	203-161-7	01-2119970582-32-0000
Coumarin	>= 0,1 < 1%	Acute Tox. 4, H302; Skin Sens. 1, H317; STOT RE 2, H373		91-64-5	202-086-7	01-2119943756-26-0000
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one - FEMA 0	>= 0,1 < 1%	Acute Tox. 4, H302; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 10 10		1506-02-1	216-133-4	
(E)-1-methoxy-4-(1-propenyl)benzene - FEMA 2086	>= 0,1 < 1%	Skin Sens. 1, H317; Aquatic Chronic 2,		4180-23-8	224-052-0	01-2119969443-29-00

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACh
		H411				00
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides - FEMA 0	< 0,1%	Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Corr. 1B, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400 100 100		68424-85-1	270-325-2	
ethanol	< 0,1%	Flam. Liq. 2, H225	603-002-00-5	64-17-5	200-578-6	

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 area. If you feel unwell seek medical advice.

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:
Not hazardous. It’s possible to give activated charcoal in water or liquid paraffin medicine

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 skin irritation occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
If medical advice is needed, have product container or label at hand.

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 mask, gloves and protective clothing.
Eliminate all unguarded flames and possible sources of ignition. No smoking.
Provision of sufficient ventilation.
Evacuate the danger area and, in case, 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.
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)

Private households (= general public = consumers):
Handle with care.
Store in ventilated place away from heat sources,
Keep the container tightly closed.

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

Related to contained substances:
ethanol:
Component CAS-No. Value Control parameters
Basis
Ethanol-17-64 TWA 5 ppm 1.000
1.920 mg/m3
UK. EH40 WEL-Workplace Exposure Limits
Remarks Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used

- Substance: Fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized
DNEL
Systemic effects Long term Workers inhalation = 44 (mg/m3)
Systemic effects Long term Workers dermal = 312,5 (mg/kg bw/day)
Systemic effects Long term Consumers inhalation = 13 (mg/m3)
Systemic effects Long term Consumers dermal = 187,5 (mg/kg bw/day)
Systemic effects Long term Consumers oral = 7,5 (mg/kg bw/day)
PNEC
Sweet water = 0,00191 (mg/l)
sediment Sweet water = 0,58 (mg/kg/sediment)
Sea water = 0,000191 (mg/l)
intermittent emissions = 0,0191 (mg/l)
STP = 2,96 (mg/l)
ground = 0,115 (mg/kg ground)

- Substance: ethanol
DNEL
Systemic effects Long term Workers inhalation = 950 (mg/m3)

8.2. Exposure controls

Appropriate engineering controls:
Private households (= general public = consumers):

No specific checks planned

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
Manipulate with gloves. The gloves should be checked before being used. Use a technique suitable for the removal of gloves (without touching the outside of the glove) to avoid skin contact with this product dispose of contaminated gloves after use in accordance with the legislation and good laboratory practices. Wash and dry your hands.
Selected protective gloves shall comply with the requirements of EU Directive 89/686/EEC and EN 374 standards arising therefrom.
Full contact
Material: nitrile rubber
minimum thickness: 0.11 mm
permeation time: 480 min

(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
Appearance	Blue liquid	
Odour	characteristic	
Odour threshold	not determined	
pH	6,5 @ 1%	
Melting point/freezing point	not determined	
Initial boiling point and boiling range	> 100 °C	
Flash point	> 100 °C	ASTM D92
Evaporation rate	irrelevant	
Flammability (solid, gas)	not determined	
Upper/lower flammability or explosive limits	not determined	
Vapour pressure	not determined	

Physical and chemical properties	Value	Determination method
Vapour density	not determined	
Relative density	0,950 - 1,050 g/cm3	
Solubility	Completely soluble in water	
Water solubility	completamente solubile in acqua	
Partition coefficient: n-octanol/water	not determined	
Auto-ignition temperature	not determined	
Decomposition temperature	not determined	
Viscosity	not determined	
Explosive properties	not explosive	
Oxidising properties	non-oxidizing	

9.2. Other information

Content of VOC ready to use condition: 1,92 %

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 generate inflammable gases to contact with elementary metals, nitrides, inorganic sulfide, strong reducing agents.
It can generate toxic gases to contact with inorganic solfide, strong reducing agents.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION 11. Toxicological information

11.1. Information on toxicological effects

ATE(mix) oral = 16.697,0 mg/kg
ATE(mix) dermal = ∞

ATE(mix) inhal = ∞

(a) acute toxicity: 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.
Citronellol: orl-rat LD50:3450 mg/kg
skn-rbt LD50:2650 mg/kg
ihl-rat LCLo:1.3 mg/m3/4H
2-(4-tert-butylbenzyl)propionaldehyde: Oral Rat LD50 mg/kg 3.700
Skin Rabbit > 2.000 mg/kg LD50
α-Hexylcinnamaldehyde: Oral (rat) LD50: 2450 mg/kg
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran: Acute Oral Toxicity
(1) Wistar rats (10/sex) were administered commercial grade HHCB (65% HHCB in either diethyl phthalate or isopropyl myristate) via gavage at 5000 mg/kg-bw and observed for 14 days. The corrected dose of HHCB was 3250 mg/kg-bw. One death occurred at this dose.
LD50 > 3250 mg/kg-bw
(2) Rats (10 females/dose; strain not specified) were administered commercial sample (65% HHCB in either diethyl phthalate or isopropyl myristate) via gavage at 3000 mg/kg-bw and observed for 14 days. It is not clear whether the reported dose reflected dose of the mixture or of HHCB. Therefore, a conservative estimate of the LD50 is considered to be 65% of the test concentration. No mortality was observed during the study.
LD50 > 1950 mg/kg-bw
ethanol: LD50 Oral-rat-7.060 mg/kg
Remarks: Lungs, Thorax, or Respiration: Other changes.
LC50 Inhalation-rat-10:0-20000 ppm
(b) skin corrosion/irritationIf brought into contact with the skin, the product causes significant inflammation with erythema, scabs, or edema.
benzyl acetate: Skin-rabbit-skin irritant-24 h
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
Citronellol: skn-rbt 100 mg/24H SEV
Skin - Human - Skin irritation - 48 h
Terpineol: Skin-rabbit-skin irritant-Draize Test
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides: rabbit Result: Method: DOT Corrosive Exposure time: 12:0 am
ethanol: Skin-rabbit
Result: Irritating to skin. -12:0 am
(c) serious eye damage/irritation: If brought into contact with eyes, the product, causes significant irritations which may last for more than 24 hours.
ethanol: Eyes-rabbit
Result: Mild eye irritation-12:0 am
(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.
Terpineol: Eyes-rabbit-Slight eye irritation Test Draize
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides: rabbit Result: Caustic Method: DOT
(d) respiratory or skin sensitization: The product, if brought into contact with skin can cause skin sensitization.
Citronellol: mouse - May cause sensitization by skin contact.
Coumarin: Test: Inhalation Sesitization Route: Inhalation Species: Rat = 293 mg/kg
Test: Inhalation Sesitization Route: Inhalation Species: Mouse = 196 mg/kg
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides: Buehler guinea pig Test Classification:

Did not cause sensitization on laboratory animals.
Result: not sensitizing Method: OECD Test Guideline 406
(e) germ cell mutagenicity: benzyl acetate: Laboratory tests revealed mutagenic effects.
Genotoxicity in vitro lymphocyte-topo-
mutation in mammalian somatic cells
In vitro genotoxicity-Hamster-Lungs
Cytogenetic analysis
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: benzyl acetate: Cancerogenicit-rat-Oral
Oncogenia: second neoplastic RTECS gastrointestinal tumors
Cancerogenicit-rat-Oral
Oncogenia: Liver cancer second neoplastic RTECS:
This product or contains a component that cannot be classified according to its effect
carcinogen IARC classification, ACGIH, NTP or EPA.
IARC: Group 3-3: Not classifiable as to its carcinogenicity to humans (Benzyl acetate)
(g) reproductive toxicity: 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran: Mated female Crl:CD(SD)Br rats (animals/sex/dose not specified) were administered HHCB via gavage at 0, 2, 6 or
20 mg/kg-bw/day beginning on gestation day 14. The F1 offspring were exposed in utero and throughout lactation. At the end of the pre-weaning period, 24 male and 24 female pups per dose were retained for further study. On day 22 post-partum, excess pups and parents were sacrificed and examined for abnormalities. When offspring were 84 days of age, males and females were mated and produced litters. After day 21 post-partum, all F2 pups and F1 dams were sacrificed and examined internally and externally for abnormalities. No adverse effects on behavior or reproduction were observed at any dose in parental animals or in F1 or F2 pups.
NOAEL (systemic and reproductive toxicity) = 20 mg/kg-bw/day (based on no effects at the highest dose tested)
ethanol: Reproductive toxicity-Human-female-Oral
Effects on Newborn: Apgar score (human only). Effects on Newborn: Other measures or neonatal effects.
Effects on Newborn: Drug dependence.
(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)
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran: Sprague-Dawley rats (15/sex/dose) were administered HHCB via the diet at 0, 5, 15, 50 or 150 mg/kg-bw/day for 13
weeks. Test concentrations were determined from a range finding study in which a LOAEL of 300 mg/kg-bw/day (based on hepatic effects) was determined. Mean estimated test substance intakes were 5.4, 15.7, 51.8 or 155.8 mg/kg-bw/day for males and 5.1, 15.6, 51.9 or 154.6 mg/kg-bw/day for females. There were no mortalities, adverse clinical signs or treatment-related effects on body weight, hematology or ophthalmologic evaluation. Slightly lower mean plasma triglyceride levels were observed at week13 in males at 50 and 150 mg/kg-bw/day. Slightly lower plasma glucose concentrations were noted at week 7 in males and females given 15, 50 and 150 mg/kg-bw/day and at week 13 in males given 50 and 150 mg/kg-bw/day; these effects were not seen at the end of the 4-week recovery period. There were no treatment-related differences in absolute organ weights or organ weight
(j) aspiration hazard: based on available data, the classification criteria are not met.

Related to contained substances:
Fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized:
Oral, LD50: 5000 mg / kg (rat)

Dermal, LD50:> 2000 mg / kg (rat)
LD50 (rat) Oral (mg/kg body weight) = 5000
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2000

Nopyl acetate:
LD50 (rat) Oral (mg/kg body weight) = 3000
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2000

benzyl acetate:
Oral LD50-rat-2,490 mg/kg
Observations: behavior: somnolence (General depressed activity)
LD50 Dermal-rabbit-> 5,000 mg/kg
Acute toxicity of the vapor (LC50): 245 8 hours
LD50 (rat) Oral (mg/kg body weight) = 2490
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 5000
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 245

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

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

2-(4-tert-butylbenzyl)propionaldehyde:
LD50 (rat) Oral (mg/kg body weight) = 3700
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2000

α-Hexylcinnamaldehyde:
LD50 (rat) Oral (mg/kg body weight) = 2450

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran:
LD50 (rat) Oral (mg/kg body weight) = 3250
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 3250

Terpineol:
LD50 oral, rat-5,420 mg/kg
Ld50 oral, rat-4,300 mg/kg
Dermal Ld50-rabbit-> 2,000 mg/kg
LD50 (rat) Oral (mg/kg body weight) = 2000
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2000
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 4,76

Reaction mass of 2-methylbutyl salicylate and pentyl salicylate:
LD50 (rat) Oral (mg/kg body weight) = 2000

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

2-Methyl-3-(p-isopropylphenyl)propionaldehyde:
Oral-rat LD50 3810 mg / kg
Remarks: Behavior: ataxia Behavior: coma Cute and annexed: other: hair

Food and Cosmetics Toxicology. Vol. 2, Pg. 327, 1964.

LD50 Dermal - rat -> 5.000 mg / kg
Remarks: Sense organs: sight: lacrimation Behavior: drowsiness (depressive activity generic) Skin and appendages: other: hair
LD50 (rat) Oral (mg/kg body weight) = 3810
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

1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one:
LD 50 ORAL / RAT (mg /Kg) : 920
LD50 DERMAL/RAT(mg /Kg) : 7940
LD50 (rat) Oral (mg/kg body weight) = 920
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 7940

(E)-1-methoxy-4-(1-propenyl)benzene:
DL50 orale de 2090 mg / kg chez le rat
COMPORTEMENTAL: SOMNOLENCE (ACTIVITÉ GÉNÉRALE DÉPRIMÉE) COMPORTEMENTAL: COMA
Toxicologie alimentaire et cosmétique. Vol. 2, pg. 327, 1964.

DL50 intrapéritonéale 900 mg / kg
Thérapie Vol. 22, pg. 309, 1967.

DL50 par voie orale 3050 mg / kg
COMPORTEMENTAL: SOMNOLENCE (ACTIVITÉ GÉNÉRALE DÉPRIMÉE) COMPORTEMENTAL: COMA
Toxicologie alimentaire et cosmétique. Vol. 2, pg. 327, 1964.

LD50 intraperitoneale-souris 650 mg / kg
Thérapie Vol. 22, pg. 309, 1967.

DL50 orale 2167 mg / kg
COMPORTEMENT: SOMNOLENCE (ACTIVITÉ DÉPRIMÉE GÉNÉRALE)
Toxicologie alimentaire et cosmétique. Vol. 2, pg. 327, 1964.
LD50 (rat) Oral (mg/kg body weight) = 2090
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 5000

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:
LD50 (rat) Oral (mg/kg body weight) = 344
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 3340
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 5

ethanol:
ROUTES of EXPOSURE: the substance can be absorbed into the body by inhalation of its fumes and ingestion.
INHALATION RISK: A harmful contamination of the air will be reached quite slowly due to evaporation of the substance at 20 C.
Effects of short-term exposure: the substance is irritating to the eyes. Inhalation of high vapour can concetrazioni cause irritation of the eyes and respiratory tract. The substance may cause effects on the central nervous system effects of REPEATED EXPOSURE or long term: the liquid degreasing the skin features. The substance may have an effect on the high central nervous system respiratory tract, causing irritation, headaches, fatigue and lack of concentration. See Notes.

ACUTE HAZARDS/Symptoms INHALATION Cough. Headaches. Fatigue. Drowsiness.

CUTE CUTE.
EYE Redness. Pain. Burning.
SWALLOWED burning sensation. Headaches. Confusion. Vertigo. State of unconsciousness.

N O T and consumption of ethanol during pregnancy can have adverse effects on the unborn child. Chronic ethanol ingestion can cause cirrhosis of the liver.
LD50 (rat) Oral (mg/kg body weight) = 7060
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 20000
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 20000

SECTION 12. Ecological information

12.1. Toxicity

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:
Related to contained substances:
Fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized:
fish, CL50 : 1,91 mg/l (OECD 203 (96h))
daphnia, CE50 : 2,23 mg/l (EU Method C.2 (48h))
alga, CI50 : 2,14 mg/l (OECD 201 (72h))
C(E)L50 (mg/l) = 1,91

benzyl acetate:
Toxicity to fish Lc50-Oryzias latipes-4 mg/l-96 h
C(E)L50 (mg/l) = 4

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

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

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

2-(4-tert-butylbenzyl)propionaldehyde:
Daphnia magna 48 hrs-LC50 = 0.40 mg/l
Green algae 96 hrs-EC50 = 0.827 mg/l
C(E)L50 (mg/l) = 0,4

α-Hexylcinnamaldehyde:
Freshwater Fish Toxicity: acute LC50 >1-10 mg/L
Freshwater Invertebrates Toxicity: acute EC <1 mg/L
Algal Toxicity: acute EC <1 mg/L.
C(E)L50 (mg/l) = 0,99

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran:
21 days Daphnia magna NOEC 111 g/L NOEC 21 days Bluegill sunfish (lepomismacrochirus) 68 g/L NOEC 35-day early life stage test Fathead minnows (Pimephales promelas) 68 g/L NOEC 72 h Algae (Pseudokirchneriella subcapitata) 201 g/L 8 weeks NOEC Earthworm (Eisenia fetida) 45 g/kg Soil DM 4 weeks Springtails NOEC (Folsomia candida) 45 g/kg Soil DM
C(E)L50 (mg/l) = 0,282

Terpineol:
C(E)L50 (mg/l) = 68

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-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one:
Fathead minnow Pimephales promelas LC50 = 0.100
Marine copepod Acartia tonsa 48-h, marine, mortality LC50 = 0.71
C(E)L50 (mg/l) = 0,1 10
10

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:
C(E)L50 (mg/l) = 0,01 100
100

ethanol:
C(E)L50 (mg/l) = 11200

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

2-(4-tert-butylbenzyl)propionaldehyde:
92% "biodegradation after 28 days. 96% after day 31.

Coumarin:
100% (by BOD), 100% (by TOC), 99.6% (by GC)

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:
Biodegradability:
OECD Confirmatory > 90% Test Method: OECD 303 A Modified SCAS Test Exposure time: 99% 7 d > Method: OECD Test 302 Evolution CO2 Concentration: 5 mg/litre Exposure time: 28 d Result: Readily biodegradable.
95.5% Method: OECD 301 B

12.3. Bioaccumulative potential

Related to contained substances:
Coumarin:
6.7

12.4. Mobility in soil

Related to contained substances:
Coumarin:
log Pow: 1.39
Soil adsorption (Koc): No data available
Henry's Law constant(PaM3/mol): 0.7

12.5. Results of PBT and vPvB assessment

No PBT/vPvB ingredient is present

12.6. 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

ADR/RID/IMDG/ICAO-IATA: 3082

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. (Composti di ammonio quaternario, benzil-C12-16-alchildimetil, cloruri, etanolo, acetato di benzile, acetato di 4-terz-butilcicloesile, 1,3,4,6,7,8-esaidro-4,6,6,7,8,8-esametillinden[5,6-c]pirano, 2-(4-terz-butilbenzil)propionaldeide, α-Hexylcinnamaldehyde, Salicilato di benzile, 1-(5,6,7,8-tetraidro-3,5,5,6,8,8-esametil-2-naftil) etan-1-one, Coumarin, 10-Undecenal, Indole)
ADR/RID/IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides, ethanol, benzyl acetate, 4-tert-Butylcyclohexyl acetate, 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran, 2-(4-tert-butylbenzyl)propionaldehyde, α-Hexylcinnamaldehyde, Benzyl salicylate, 1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one, Coumarin, 10-Undecenal, indole)
ICAO-IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides, ethanol, benzyl acetate, 4-tert-Butylcyclohexyl acetate, 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran, 2-(4-tert-butylbenzyl)propionaldehyde, α-Hexylcinnamaldehyde, Benzyl salicylate, 1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one, Coumarin, 10-Undecenal, indole)

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. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

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:

HP14 - Ecotoxic

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, 4.1. Description of first aid measures, 8.1. Control parameters, 11.1. Information on toxicological effects, 12.1. Toxicity, 12.5. Results of PBT and vPvB assessment, 14.1. UN number, 14.3. Transport hazard class(es), 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Description of the hazard statements exposed to point 3
H412 = Harmful to aquatic life with long lasting effects.
H317 = May cause an allergic skin reaction.
H411 = Toxic to aquatic life with long lasting effects.
H315 = Causes skin irritation.
H319 = Causes serious eye irritation.
H335 = May cause respiratory irritation.
H302 = Harmful if swallowed.
H318 = Causes serious eye damage.
H361f = Suspected of damaging fertility.
H400 = Very toxic to aquatic life.
H410 = Very toxic to aquatic life with long lasting effects.
H373 = May cause damage to organs through prolonged or repeated exposure .
H312 = Harmful in contact with skin.
H314 = Causes severe skin burns and eye damage.
H225 = Highly flammable liquid and vapour.

Classification based on data of all mixture components

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.