

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

### **1.1. Product identifier**

Product code : Hygienfresh Essenza Fior di Loto

Trades code : A48-031

Product line: Hygienfresh

UFI: 4X01-70N9-P00Q-RECW

### **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](mailto:info@tintolav.com) - Sito internet: [www.tintolav.com](http://www.tintolav.com)

Email tecnico competente: [a.conedera@tintolav.com](mailto: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 Sens. 1B, Eye Dam. 1, Aquatic Chronic 2

Hazard statement Code(s):

H302 - Harmful if swallowed.

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

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.  
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, nopyl acetate, 4-tert-butylcyclohexyl acetate, Citronellol, Hexyl cinnamal, Reaction mass of 2-methylbutyl salicylate and pentyl salicylate, methylundecanal, cyclamen aldehyde, Benzyl salicylate, acetyl hexamethyl tetralin, Coumarin, 3-(p-cumenyl)-2-methylpropionaldehyde.

Contains (Reg.EC 648/2004):

> 30% Perfumes, 15% <30% Non-ionic surfactants, <5% Citronellol, Hexyl cinnamal, Benzyl salicylate, Coumarin

For professional use only

UFI: 4X01-70N9-P00Q-RECW

**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

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
Nopyl acetate - FEMA 0	>= 1 < 5%	Skin Sens. 1B, H317; Eye Irrit. 2, H319; Aquatic Chronic 2, H411 1 1 ATE oral = 3.000,0 mg/kg ATE dermal = 2.000,0 mg/kg	ND	128-51-8	204-891-9	01-2119982 322-38-000 0
benzyl acetate - FEMA 2135	>= 1 < 5%	Aquatic Chronic 3, H412 1 1 ATE oral = 2.490,0 mg/kg ATE dermal = 5.000,0 mg/kg ATE inhal = 245,0mg/l/4 h	ND	140-11-4	205-399-7	01-2119638 272-42
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	01-2119976 286-24
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 ATE oral = 3.250,0 mg/kg ATE dermal = 3.250,0 mg/kg	603-212-00-7	1222-05-5	214-946-9	01-2119488 227-29-000 0
Terpineol - FEMA 0	>= 1 < 5%	Skin Irrit. 2, H315; Eye Irrit. 2, H319 ATE oral = 2.000,0 mg/kg ATE dermal = 2.000,0 mg/kg ATE inhal = 4,8mg/l/4 h	ND	8000-41-7	232-268-1	01-2119553 062-49-xxxx
Citronellol	>= 1 < 5%	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

Substance	Concentration[ w/w]	Classification	Index	CAS	EINECS	REACH
$\alpha$ -Hexylcinnamaldehyde	$\geq 1 < 5\%$	Skin Sens. 1, H317; Aquatic Chronic 2, H411 ATE oral = 2.450,0 mg/kg	ND	101-86-0	202-983-3	01-2119533 092-50
Reaction mass of 2-methylbutyl salicylate and pentyl salicylate	$\geq 1 < 5\%$	Acute Tox. 4, H302; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 1 1 ATE oral = 2.000,0 mg/kg	ND	ND	911-280-7	01-2119969 444-27-000 2
2-Methylundecanal - FEMA 2749	$\geq 0,1 < 1\%$	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
2-Methyl-3-(p-isopropylphenyl)pro- pionaldehyde - FEMA 2743	$\geq 0,1 < 1\%$	Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Chronic 2, H411 1 1 ATE oral = 3.810,0 mg/kg ATE dermal = 5.000,0 mg/kg	ND	103-95-7	203-161-7	01-2119970 582-32-000 0
Benzyl salicylate	$\geq 0,1 < 1\%$	Skin Sens. 1B, H317; Eye Irrit. 2, H319; Aquatic Chronic 3, H412 1 1 ATE oral = 2.227,0 mg/kg	607-754-00-5	118-58-1	204-262-9	01-2119969 442-31
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-h examethyl-2-naphthyl)ethan-1-on e - FEMA 0	$\geq 0,1 < 1\%$	Acute Tox. 4, H302; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 10 10 ATE oral = 920,0 mg/kg ATE dermal = 7.940,0 mg/kg	ND	1506-02-1	216-133-4	01-2119539 433-40-000 0
Coumarin	$\geq 0,1 < 1\%$	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	01-2119943 756-26-000 0
3-(4-isobutylphenyl)-2-methylprop anal - FEMA 0	$\geq 0,10 < 1\%$	Skin Irrit. 2, H315; Skin Sens. 1, H317; Repr. 2, H361 ATE oral > 5.000,0 mg/kg	ND	6658-48-6	229-695-0	ND

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACH
		ATE dermal > 5.000,0 mg/kg				
(E)-1-methoxy-4-(1-propenyl)benzene - FEMA 2086	>= 0,1 < 1%	Skin Sens. 1, H317; Aquatic Chronic 2, H411 1 1 ATE oral = 2.090,0 mg/kg ATE dermal = 5.000,0 mg/kg	ND	4180-23-8	224-052-0	01-2119969 443-29-000 0

## 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):

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 or rash occurs: Get medical advice/attention.

## SECTION 5. Firefighting measures

### 5.1. Extinguishing media

#### Advised extinguishing agents:

Water spray, CO<sub>2</sub>, 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:  
Move away from the area surrounding the spill or release. Not smoking.  
Wear a 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: benzyl acetate

DNEL

Systemic effects Long term Workers inhalation = 21,9 (mg/m<sup>3</sup>)

Systemic effects Long term Workers dermal = 6,25 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 5,5 (mg/m<sup>3</sup>)

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: 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran

DNEL

Systemic effects Long term Workers inhalation = 22 (mg/m<sup>3</sup>)

Systemic effects Long term Workers dermal = 60 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 6,5 (mg/m<sup>3</sup>)

Systemic effects Long term Consumers dermal = 36 (mg/kg bw/day)

Systemic effects Long term Consumers oral = 3,8 (mg/kg bw/day)

PNEC

Sweet water = 0,0044 (mg/l)

sediment Sweet water = 2 (mg/kg/sediment)

Sea water = 0,00044 (mg/l)

sediment Sea water = 0,394 (mg/kg/sediment)

ground = 0,31 (mg/kg ground)

- Substance: Terpineol

DNEL

Systemic effects Long term Workers inhalation = 5,8 (mg/m<sup>3</sup>)

- Substance: Citronellol

DNEL

Systemic effects Long term Workers inhalation = 161,6 (mg/m<sup>3</sup>)

- Substance:  $\alpha$ -Hexylcinnamaldehyde

DNEL

Systemic effects Long term Workers inhalation = 0,000078 (mg/m<sup>3</sup>)

Systemic effects Short term Workers inhalation = 0,00628 (mg/m<sup>3</sup>)

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	colorless	
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	
Decomposition temperature	not determined	
pH	not determined	
Kinematic viscosity	not determined	
Solubility	not determined	
Water solubility	not determined	
Partition coefficient n-octanol/water (log value)	not determined	
Vapour pressure	not determined	
Density and/or relative density	0,980 - 1,020 g /cm <sup>3</sup>	
Relative vapour density	not determined	
Particle characteristics	non pertinente	

## 9.2. Other information

### 9.2.1 Information with regard to physical hazard classes

No data available.

### 9.2.2 Other safety characteristics

Content of VOC ready to use condition: 21,05 %

## 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 = 1.696,6 mg/kg

ATE(mix) dermal = ∞

ATE(mix) inhal = ∞

(a) acute toxicity: Harmful product: do not ingest

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.

1,3,4,6,7,8-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

Citronellol: orl-rat LD50:3450 mg/kg

skn-rbt LD50:2650 mg/kg

ihl-rat LCLo:1.3 mg/m3/4H

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

Benzyl salicylate: Oral Rat LD50 = 2227 mg/kg bw

(b) skin corrosion/irritation: benzyl acetate: Skin - rabbit - Irritating to skin - 24 h

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

Terpineol: Skin-rabbit-skin irritant-Draize Test

Citronellol: skn-rbt 100 mg/24H SEV

Skin - Human - Skin irritation - 48 h

Benzyl salicylate: Skin - rabbit

Result: No skin irritation

(OECD Test Guideline 404)

(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.

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

Benzyl salicylate: Eyes - In vitro study

Result: Moderate eye irritation

(OECD Test Guideline 437)

Eyes - rabbit

Result: Irritating to eyes.

(Draize Test)

(d) respiratory/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 Sensitization Route: Inhalation Species: Rat = 293 mg/kg

Test: Inhalation Sensitization Route: Inhalation Species: Mouse = 196 mg/kg

(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: Cancerogenicity-rat-Oral

Oncogenicity: second neoplastic RTECS gastrointestinal tumors

Cancerogenicity-rat-Oral

Oncogenicity: 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)

(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 exposure 4-tert-Butylcyclohexyl acetate: In a modified developmental toxicity screening test (OECD 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 to 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 week 13 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: Benzyl salicylate: in vivo assay - mouse  
May cause allergic skin reaction.  
(OECD Test Guideline 429)

Related to contained substances:

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

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

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

$\alpha$ -Hexylcinnamaldehyde:

LD50 (rat) Oral (mg/kg body weight) = 2450

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

Benzyl salicylate:

LD50 (rat) Oral (mg/kg body weight) = 2227

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

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

3-(4-isobutylphenyl)-2-methylpropanal:

LD50 (rat) Oral (mg/kg body weight) > 5000

LD50 Dermal (rat or rabbit) (mg/kg body weight) > 5000

(E)-1-methoxy-4-(1-propenyl)benzene:

DL50 orale de 2090 mg / kg chez le rat

COMORTEMENTAL: SOMNOLENCE (ACTIVITÉ GÉNÉRALE DÉPRIMÉE) COMORTEMENTAL: 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

COMORTEMENTAL: SOMNOLENCE (ACTIVITÉ GÉNÉRALE DÉPRIMÉE) COMORTEMENTAL: 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

COMORTEMENT: 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

**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

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

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 (*Lepomis macrochirus*) 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

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

$\alpha$ -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

Benzyl salicylate:

Zebra fish (*Brachydanio rerio*) 96 hour LC50 = 1.03 mg/L  
48 hour LC50 = 1.4mg/l  
C(E)L50 (mg/l) = 1,03

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

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

3-(4-isobutylphenyl)-2-methylpropanal:

C(E)L50 (mg/l) = 3,02

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

## 12.3. Bioaccumulative potential

Related to contained substances:

Coumarin:

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

## 12.4. Mobility in soil

No data available.



**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**

No data available.

**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. (acetato di benzile, acetato di 4-terz-butilicloesile, 1,3,4,6,7,8-esaidro-4,6,6,7,8,8-esametillinden[5,6-c]pirano,  $\alpha$ -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, 3-(4-isopropylphenyl)propanal, Indole)

ADR/RID/IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (benzyl acetate, 4-tert-Butylcyclohexyl acetate, 1,3,4,6,7,8-hexahidro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran,  $\alpha$ -Hexylcinnamaldehyde, Benzyl salicylate, 1-(5,6,7,8-tetraidro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one, Coumarin, 10-Undecenal, 3-(4-isopropylphenyl)propanal, indole)

ICAO-IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (benzyl acetate, 4-tert-Butylcyclohexyl acetate, 1,3,4,6,7,8-hexahidro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran,  $\alpha$ -Hexylcinnamaldehyde, Benzyl salicylate, 1-(5,6,7,8-tetraidro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one, Coumarin, 10-Undecenal, 3-(4-isopropylphenyl)propanal, 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. 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**

Description of the hazard statements exposed to point 3

H302 = Harmful if swallowed.

H318 = Causes serious eye damage.

H317 = May cause an allergic skin reaction.

H319 = Causes serious eye irritation.

H411 = Toxic to aquatic life with long lasting effects.

H412 = Harmful to aquatic life with long lasting effects.

H400 = Very toxic to aquatic life.

H410 = Very toxic to aquatic life with long lasting effects.

H315 = Causes skin irritation.

H335 = May cause respiratory irritation.

H373 = May cause damage to organs through prolonged or repeated exposure .

H361 = Suspected of damaging fertility or the unborn child .

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
- 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.

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