

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

1.1. Product identifier

Product code : Hygienfresh Bustine profumate Lavanda
Trades code : A80-035/2
Product line: Hygienfresh

UFI: 6CJ0-609T-M00K-9D9X

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

Envelope scented with Hook-perfume long lasting for cabinets and drawers

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

- P273 - Avoid release to the environment.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response

- P302+P352 - IN CASE OF CONTACT WITH SKIN: wash thoroughly with soap and water
- 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:

Reaction mass of cis-1-methyl-1-(4-methylcyclohexyl) ethyl acetate and trans-1-methyl-1-(4-methylcyclohexyl) ethyl acetate and cis- 4-isopropyl-1-methylcyclohexyl acetate and trans-4-isopropyl-1-methylcyclohexyl acetate, 3,5,5-Trimethylhexyl acetate, Terpineol, 3,7-dimethyloctan-3-ol, nerol, cineole, 2,6-dimethyloct-7-en-2-ol, 4-tert-Butylcyclohexyl acetate, Linalool, Linalyl acetate, Coumarin, Eucalyptus globulus oil, Geraniol, dipentene, Eugenol

Content of VOC ready to use condition: 7,90 %

UFI: 6CJ0-609T-M00K-9D9X

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

Note C - Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACH
Reaction mass of cis-1-methyl-1-(4-methylcyclohexyl) ethyl acetate and trans-1-methyl-1-(4-methylcyclohexyl) ethyl acetate and cis-4-isopropyl-1-methylcyclohexyl acetate and trans-4-isopropyl-1-methylcyclohexyl acetate	>= 5 < 15%	Skin Sens. 1B, H317; Eye Irrit. 2, H319; Aquatic Chronic 2, H411	ND	ND	939-728-7	01-2119983 293-30
2,6-dimethyloct-7-en-2-ol - FEMA 0	>= 5 < 15%	Skin Irrit. 2, H315	ND	18479-58-8	242-362-4	NR
4-tert-Butylcyclohexyl acetate - FEMA 0	>= 5 < 15%	Skin Sens. 1B, H317; Aquatic Chronic 2, H411	ND	32210-23-4	250-954-9	NR
2,2' -oxybisethanol	>= 5 < 15%	Acute Tox. 4, H302	603-140-00-6	111-46-6	203-872-2	NR
Resin acids and Rosin acids, hydrogenated, Me esters - FEMA 0	>= 5 < 15%	Aquatic Chronic 3, H412	ND	8050-15-5	232-476-2	NR
3,5,5-Trimethylhexyl acetate - FEMA 0	>= 1 < 5%	Skin Irrit. 2, H315; Aquatic Chronic 2, H411	ND	58430-94-7	261-245-9	NR
Terpineol, acetate	>= 1 < 5%	Aquatic Chronic 2, H411	ND	8007-35-0	232-357-5	NR
Linalool	>= 1 < 5%	Skin Sens. 1B, H317	603-235-00-2	78-70-6	201-134-4	01-2119485 965-18-xxxx x
Coumarin	>= 1 < 5%	Acute Tox. 4, H302; Skin Sens. 1, H317; STOT RE 2, H373	ND	91-64-5	202-086-7	01-2119943 756-26-000 0
Linalyl acetate - FEMA 2636	>= 1 < 5%	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Aquatic Chronic 2, H411	ND	115-95-7	204-116-4	01-2119454 789-19-000 0
camphene - FEMA 2229	>= 1 < 5%	Flam. Sol. 2, H228; Eye Irrit. 2, H319; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	ND	79-92-5	201-234-8	NR
Terpineol - FEMA 0	>= 1 < 5%	Skin Irrit. 2, H315; Eye Irrit. 2, H319	ND	8000-41-7	232-268-1	01-2119553 062-49-xxxx
Nopyl acetate - FEMA 0	>= 1 < 5%	Aquatic Chronic 3, H412	ND	128-51-8	204-891-9	NR
Reaction mass of allyl (2-methylbutoxy)acetate and allyl (3-methylbutoxy)acetate	>= 1 < 5%	Acute Tox. 4, H302; Acute Tox. 4, H312; STOT RE 2, H373; Aquatic Acute 1, H400	ND	ND	916-328-0	NR

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACH
Eucalyptus globulus oil - FEMA 0	>= 0,1 < 1%	Flam. Liq. 3, H226; Asp. Tox. 1, H304; Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Chronic 2, H411	ND	84625-32-1	283-406-2	NR
Geraniol - FEMA 2507	>= 0,1 < 1%	Skin Sens. 1, H317	603-241-00-5	106-24-1	203-377-1	01-2119552 430-49-000 0
nerol - FEMA 2770	>= 0,1 < 1%	Skin Irrit. 2, H315; Skin Sens. 1, H317; Eye Irrit. 2, H319	ND	106-25-2	203-378-7	NR
2,6-di-tert-butyl-p-cresol - FEMA 2184	>= 0,1 < 1%	Aquatic Acute 1, H400; Aquatic Chronic 1, H410	ND	128-37-0	204-881-4	01-2119565 113-46
cineole - FEMA 2465	>= 0,1 < 1%	Flam. Liq. 3, H226; Skin Sens. 1B, H317	ND	470-82-6	207-431-5	NR
dipentene Note: C	>= 0,1 < 1%	Flam. Liq. 3, H226; Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	601-029-00-7	5989-27-5	205-341-0	01-2119529 223-47-000 1
Eugenol	>= 0,1 < 1%	Skin Sens. 1B, H317; Eye Irrit. 2, H319	ND	97-53-0	202-589-1	01-2119971 802-33-000 0

Fractionated global values

H319 = 21,60	H317 = 28,55	H411 = 31,60	H315 = 21,85
H302 = 10,30	H312 = 1,30	H373 = 4,30	H400 = 4,50
H226 = 1,35	H410 = 3,20	H412 = 6,70	H228 = 2,50
H304 = 0,70			

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 gloves and protective clothing

6.1.2 For emergency responders:

Wear a mask, gloves and protective clothing. Suitable: LaTeX, nitrile, PVC

Delete all naked flames and potential sources of ignition. Do not smoke.

Provide adequate ventilation.

Evacuate danger area and, where appropriate, consult an expert.

6.2. Environmental precautions

Contain spill

Inform the competent 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 the removal.

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

Wear protective gloves/protective clothing/eye protection/face protection.
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

There are no data on occupational exposure limits

- Substance: Reaction mass of cis-1-methyl-1-(4-methylcyclohexyl) ethyl acetate and trans-1-methyl-1-(4-methylcyclohexyl) ethyl acetate and cis- 4-isopropyl-1-methylcyclohexyl acetate and trans-4-isopropyl-1-methylcyclohexyl acetate

PNEC

Sweet water = 0,00227 (mg/l)

sediment Sweet water = 0,254 (mg/kg/sediment)

Sea water = 0,000002 (mg/l)

sediment Sea water = 0,0254 (mg/kg/sediment)

STP = 1,7 (mg/l)

ground = 0,0494 (mg/kg ground)

- 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: Linalyl acetate

DNEL

Systemic effects Long term Workers inhalation = 2,75 (mg/m³)
Systemic effects Long term Workers dermal = 2,5 (mg/kg bw/day)
Systemic effects Long term Consumers inhalation = 0,68 (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: Terpineol

DNEL

Systemic effects Long term Workers inhalation = 5,8 (mg/m³)

- Substance: Geraniol

DNEL

Systemic effects Long term Workers inhalation = 161,6 (mg/m³)

- Substance: 2,6-di-tert-butyl-p-cresol

DNEL

Systemic effects Long term Workers inhalation = 3,5 (mg/m³)
Systemic effects Long term Workers dermal = 8,3 (mg/kg bw/day)
Systemic effects Long term Consumers inhalation = 1,74 (mg/m³)
Systemic effects Long term Consumers dermal = 5 (mg/kg bw/day)
Systemic effects Long term Consumers oral = 0,25 (mg/kg bw/day)

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

When handling the pure product use chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3)

(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:

Related to contained substances:

dipentene:

Do not let this chemical agent contaminate 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	Perfumed sachet	
Colour	Not applicable	
Odour	characteristic	
Odour threshold	not determined	
pH	irrelevant	
Melting point/freezing point	not determined	
Initial boiling point and boiling range	not determined	
Flash point	> 60 °C	ASTM D92
Evaporation rate	irrelevant	
Flammability (solid, gas)	not applicable	
Upper/lower flammability or explosive limits	not determined	
Vapour pressure	irrelevant	
Vapour density	not determined	
Relative density	irrelevant	
Solubility	Not applicable	
Water solubility	Not applicable	
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: 7,90 %

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

None in particular.

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 = 5.308,2 mg/kg
ATE(mix) dermal = 84.615,4 mg/kg
ATE(mix) inhal = ∞

(a) acute toxicity: 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.

Geraniol: Oral, rat: LD50 = 3500 mg/kg
Skin, rabbit: LD50 = >5000 mg/kg
IHL-rat TClO: 0.5 mg/m³/4:00

2,6-di-tert-butyl-p-cresol: LD50 oral: 1700 mg/kg (rat)
LD50 oral: 800 - 1600 mg/kg (mouse)
LD50 dermal: >8000 mg/kg (guinea pig)
dipentene: LD50 Oral-rat-4.400 mg/kg

Remarks: Behavioral: Change in motor activity (specific assay). Respiratory disorder Skin and Appendages:
Other: Hair. Inhalation: Irritating to respiratory system.
LD50 Dermal-rabbit->5.000 mg/kg

(b) skin corrosion/irritation: If brought into contact with the skin, the product causes significant inflammation with erythema, scabs, or edema.

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

Linalyl acetate: Linalyl acetate (100%) appeared to be severely irritating to rabbit skin and moderately irritating to the skin of the guinea pig. In a test with miniature swines application of 0.05 g linalyl acetate under a patch for 48 hours, no irritation was observed.

Linalyl acetate in Application of acetone (33%) to the back of male volunteers without known allergies during 48 hours under occlusion did not induce signs of irritation up to 120 hours after removal of the patch.

camphene: Leather - on rabbit

Result: No skin irritation - 4 h

(OECD TG 404)

Terpineol: Skin-rabbit-skin irritant-Draize Test

Geraniol: SKN-rbt 100 mg/12:00 am SEV

SKN-gpg 100 mg/12:00 am SEV

SKN-man 12:00 am 16 mg/SEV

(c) serious eye damage/irritation: If brought into contact with eyes, the product, causes significant irritations which may last for more than 24 hours.

Geraniol: Eyes-rabbit

Result: Risk of serious damage to eyes. -12:00 am

(Directive 67/548/EEC, Annex V, b. 5.)

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.

camphene: Eyes - on rabbit

Result: Irritating to the eyes. - 24 h

(OECD TG 405)

Terpineol: Eyes-rabbit-Slight eye irritation Test Draize

(d) respiratory skinsensitisation: 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

Coumarin: Test: Inhalation Seditization Route: Inhalation Species: Rat = 293 mg/kg

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

Geraniol: Guinea pig

May cause sensitisation by skin contact.

(e) germ cell mutagenicity: 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.

Linalyl acetate: 14550 Rat LD50 (mg/kg bw)

13360 Mouse LD50 (mg/kg bw)

camphene: hamster

ovary

Result: negative

mouse

lymphocyte

Result: negative

Mutagenicity (micronucleus assay)

mouse - male and female

Result: negative

(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.

dipentene: Carcinogenicity-rat-Oral

Tumorigenic: Carcinogenic by RTECS criteria. Kidney, Ureter, Bladder: Kidney tumors. Tumorigenic Effects: Testicular tumors.

Carcinogenicity-mouse-Oral

Equivocal tumorigenic agent by RTECS criteria: Tumorigenic. Gastrointestinal: Tumors.

This product is or contains a component that is not classifiable as to its carcinogenicity IARC, ACGIH, NTP, based on its or EPA classification.

IARC: Group 3-3: Not classifiable as to its carcinogenicity to humans (D-Limonene)

(g) eproductivotoxicity: 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 exposure 4-tert-Butylcyclohexyl acetate: In a modified developmental toxicity screening test (OCED TG 421), CrI: 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: Linalyl acetate: Inhalation exposure of mice to Swiss linalyl acetate 2.74 mg/L air during 90 minutes led to reduced

motor activity compared to untreated controls. The effect was more severe in mice of aged 6-8 weeks (up to 100% reduction) than in mice of 6 months (up to 81% reduction). A relationship with dose was suspected, based on the (not reported) results of a separate test with a double dose in old mice (REF. 16).

Related to contained substances:

Reaction mass of cis-1-methyl-1-(4-methylcyclohexyl) ethyl acetate and trans-1-methyl-1-(4-methylcyclohexyl) ethyl acetate and cis- 4-isopropyl-1-methylcyclohexyl acetate and trans-4-isopropyl-1-methylcyclohexyl acetate:

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

2,2' -oxybisethanol:

ACUTE TOXICITY:

- By ingestion: harmful. May cause symptoms similar to those from "alcohol" intoxication, resulting in loss of consciousness and convulsions. May cause liver and kidney injury.

- Inhalation: exposure to mists or vapors in high concentrations may cause irritation of the eyes and respiratory tract.

CHRONIC TOXICITY:

- Skin: repeated or prolonged contact may cause irritation. Poor probability of being absorbed through the skin in harmful quantities.

- Eye: may cause simultaneous conjunctival irritation.
LD50 Oral - Rat - 12.565 mg / kg
LD50 Oral - human - 1,000 mg / kg
LD50 Dermal - Rabbit - 11.890 mg / kg
LD50 (rat) Oral (mg/kg body weight) = 1000
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 11890

Resin acids and Rosin acids, hydrogenated, Me esters:
Acute oral toxicity: LD50 Oral (Rat):> 2,000 mg / kg
Remarks: None.

Acute dermal toxicity: LD50 Dermal (Rat):> 2,000 mg / kg
Remarks: No significant adverse effects reported
LD50 (rat) Oral (mg/kg body weight) = 2000
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2000

3,5,5-Trimethylhexyl acetate:
Oral LD50-rat-4250.0 mg/kg
LD50 Dermal-rabbit->5000 mg/kg
LD50 (rat) Oral (mg/kg body weight) = 4250
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 5000

Terpineol, acetate:
LD50 (rat) Oral (mg/kg body weight) = 5075

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

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

Linalyl acetate:
LD50 (rat) Oral (mg/kg body weight) = 14550
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 13360

camphene:
LD50 (rat) Oral (mg/kg body weight) = 5000
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2500

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

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

Eucalyptus globulus oil:

LD50 (rat) Oral (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

nerol:

LD50 Oral - rat - 4.500 mg / kg

DL50 Dermal - on rabbit -> 5.000 mg / kg

LD50 (rat) Oral (mg/kg body weight) = 4500

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

2,6-di-tert-butyl-p-cresol:

LD50 (rat) Oral (mg/kg body weight) = 1700

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 8000

cineole:

LD50 Oral - Rat - 2.480 mg / kg

LD50 (rat) Oral (mg/kg body weight) = 2480

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

dipentene:

Routes of Entry: Absorbed through skin. Eye contact. Inhalation. Ingestion.

Toxicity to Animals:

Acute oral toxicity (LD50): 4400 mg/kg [Rat].

Acute dermal toxicity (LD50): >5000 mg/kg [Rabbit].

Chronic Effects on Humans: CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC.

Other Toxic Effects on Humans:

Hazardous in case of skin contact (irritant, sensitizer), of inhalation (lung irritant).

Slightly hazardous in case of skin contact (permeator), of ingestion.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: May cause adverse reproductive effects and birth defects (teratogenic)

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects:

Skin: Causes skin irritation. It can be absorbed through intact skin. However, it is generally regarded to have low toxicity by dermal route.

Eyes: Causes eye irritation.

Inhalation: Aspiration of large doses may produce pulmonary edema and chemical pneumonitis. May cause dizziness and suffocation. No nasal or pharyngeal irritation has been reported.

Ingestion: It is generally regarded to have low toxicity by oral route. It may produce burning pain in the mouth and throat, abdominal pain, nausea, vomiting, and diarrhea. There may an odor of terpenes in the vomitus or breath.

It may affect behavior/central nervous and peripheral nervous system. Central nervous system effects may include excitement, somnolence, delirium, ataxia, convulsions, and stupor while peripheral system effects may include spastic paralysis. It may affect respiration (respiratory depression, choking, coughing, dyspnea, cyanosis). Other symptoms may include cyanosis, fever, and tachycardia. Systemic absorption of large doses may produce pulmonary edema and chemical pneumonitis. The urine may smell like violets.

Chronic Potential Health Effects:

Ingestion: Prolonged or repeated ingestion may produce nausea, lowered blood sugar and cholesterol, and kidney damage (hematuria, albuminuria, tubular necrosis), and may also affect the liver.

Skin: It may be a weak sensitizer and responsible for some rare allergic responses (dermatitis)

LD50 (rat) Oral (mg/kg body weight) = 4400

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

Eugenol:

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

11.2. Information on other hazards

No data available.

SECTION 12. Ecological information

12.1. Toxicity

3,5,5-Trimethylhexyl acetate:

Related to contained substances:

Reaction mass of cis-1-methyl-1-(4-methylcyclohexyl) ethyl acetate and trans-1-methyl-1-(4-methylcyclohexyl) ethyl acetate and cis-4-isopropyl-1-methylcyclohexyl acetate and trans-4-isopropyl-1-methylcyclohexyl acetate:

C(E)L50 (mg/l) = 2,732

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 mg/l

C(E)L50 (mg/l) = 4,81

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

2,2'-oxybisethanol:

Toxicity to fish CL50 - *Pimephales promelas* (American chub) - 75.200 mg / l - 96 h

LC50 - *Carassius auratus* (Redfish) - 5.000 mg / l - 24 h

Toxicity to daphnia and other aquatic invertebrates EC50 - *Daphnia magna* (Water flea) -> 10,000 mg / l - 24 h (DIN 38412)

C(E)L50 (mg/l) = 5000

Resin acids and Rosin acids, hydrogenated, Me esters:

Acute 96-hour LL50 (*Fathead minnow*):> 1000 mg / l.

Acute 48-hour EL50 (*Daphnia magna*): 27 mg / l

NOEL: <19 mg / l

Algae growth inhibition test (72-hour EL50):> 1000 mg / l

C(E)L50 (mg/l) = 19

3,5,5-Trimethylhexyl acetate:

C(E)L50 (mg/l) = 4

NOEC (mg/l) = 4

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

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

Linalyl acetate:

Cyprinus carpio, 96-hour LC50 value of 2.86 mg/L

Daphnia magna, 48-hour EC50 value of 2.91 mg/L

Scenedesmus subspicatus, 72-hour exposure, EC50 value of 4.2 mg/L

C(E)L50 (mg/l) = 2,86

camphene:

Toxicity to fish CL50 continuous flow test - *Brachydanio rerio* - 0.72 mg / l - 96 h

(OECD TG 203)

Toxicity to daphnia Semi-static test CE50 - *Daphnia magna* (Water flea) - 0.72 mg / l -

and for other aquatic invertebrates 48 h (OECD TG 202)

Toxicity to algae static test EC50 - *Desmodesmus subspicatus* (*Scenedesmus subspicatus*) -> 1,000 mg / l - 72 h (OECD TG 201)

Toxicity to bacteria CE50 respiration inhibitor - Sludge treatment -> 1,000 mg / l - 3 h (OECD Test Guideline 209)

C(E)L50 (mg/l) = 0,72

Terpineol:

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

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

nerol:

C(E)L50 (mg/l) = 2,16

2,6-di-tert-butyl-p-cresol:

Toxicity to fish LC50 - *Oryzias latipes* - 5.3 mg/l - 48 h

Toxicity to daphnia and other aquatic invertebrates EC50 - *Daphnia pulex* (Water flea) - 1.44 mg/l - 48 h

C(E)L50 (mg/l) = 1,44

cineole:

Toxicity to fish CL50 - *Pimephales promelas* (American chub) - 102 mg / l - 96 h

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

dipentene:

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.
Special Remarks on the Products of Biodegradation: Not available.
C(E)L50 (mg/l) = 0,702

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

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:

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

72% within 28 days in an OECD 301B assay

2,2' -oxybisethanol:

Anaerobic biodegradability - Exposure time 28 d

Result: 90 - 100% - Quickly biodegradable.

(OECD TG 301 B)

Linalool:

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

Coumarin:

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

camphene:

aerobic - Exposure time 28 d

Result: 14% - Not immediately biodegradable.

(OECD TG 301 C)

Geraniol:

36 - 70 % (by BOD), 72 - 88 % (by TOC)

12.3. Bioaccumulative potential

Related to contained substances:

2,2' -oxybisethanol:

Bioaccumulation Leuciscus idus melanotus - 3 d

- 0.05 mg - Bioconcentration factor (BCF): 100

Linalool:

106

Coumarin:

6.7

camphene:

Cyprinus carpio (Carp) - 56 d
at 25 ° C - 0.015 mg / l

Bioconcentration factor (BCF): 432 - 922
(OECD Test Guidelines No.305C)

12.4. Mobility in soil

Related to contained substances:

Linalool:

log Pow: 2.55

Soil adsorption (Koc): 75

Henry's Law constant(PaM3/mol): 2

Coumarin:

log Pow: 1.39

Soil adsorption (Koc): No data available

Henry's Law constant(PaM3/mol): 0.7

Geraniol:

log Pow: 3.47

12.5. Results of PBT and vPvB assessment

No PBT/vPvB ingredient is present

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 kg per package 30 Kg

Inner packagings placed in skrink-wrapped or stretch-wrapped trays: per inner packaging 5 kg per package 20 Kg

14.2. UN proper shipping name

ADR/RID/IMDG: MATERIA PERICOLOSA PER L'AMBIENTE, SOLIDA, N.A.S. (3,5,5-Trimethylhexyl acetate, Cineolo, acetato di 4-terz-butilcicloesile, terpinolo, acetato, Coumarin, canfene, Eucalyptus oil span. rect, 70%, organic, 2,6-di-terz-butyl-p-cresolo, dipentene)

ADR/RID/IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (3,5,5-Trimethylhexyl acetate, cineole, 4-tert-Butylcyclohexyl acetate, Terpeneol, acetate, Coumarin, camphene, Eucalyptus globulus oil, 2,6-di-tert-butyl-p-cresol, dipentene)

ICAO-IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (3,5,5-Trimethylhexyl acetate, cineole, 4-tert-Butylcyclohexyl acetate, Terpeneol, acetate, Coumarin, camphene, Eucalyptus globulus oil, 2,6-di-tert-butyl-p-cresol, dipentene)

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 kg

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

HP13 - Sensitising

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: 1.1. Product identifier, 2.1. Classification of the substance or mixture, 2.2. Label elements, 2.3. Other hazards, 4.1. Description of first aid measures, 7.1. Precautions for safe handling, 8.1. Control parameters, 8.2. Exposure controls, 9.2. Other information, 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008, 12.1. Toxicity, 12.5. Results of PBT and vPvB assessment, 12.6. Endocrine disrupting properties, 14.1. UN number or ID number, 14.2. UN proper shipping name, 14.3. Transport hazard class(es), 14.4. Packing group, 14.5. Environmental hazards, 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Description of the hazard statements exposed to point 3

- H317 = May cause an allergic skin reaction.
- H319 = Causes serious eye irritation.
- H411 = Toxic to aquatic life with long lasting effects.
- H315 = Causes skin irritation.
- H302 = Harmful if swallowed.
- H412 = Harmful to aquatic life with long lasting effects.
- H373 = May cause damage to organs through prolonged or repeated exposure .
- H228 = Flammable solid.
- H400 = Very toxic to aquatic life.
- H410 = Very toxic to aquatic life with long lasting effects.
- H312 = Harmful in contact with skin.
- H226 = Flammable liquid and vapour.
- H304 = May be fatal if swallowed and enters airways.

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.