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

1.1. Product identifier

Product code : Hygienfresh - Placchette mangiodori Latte di Rosa
Trades code : A80-052
Product line: Hygienfresh

UFI: MXT0-T0AH-8002-EHKD

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

Scented hanger
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 Sens. 1B, Aquatic Chronic 2

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

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):
H317 - May cause an allergic skin reaction.
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 - IF ON SKIN: Wash with plenty of water and soap.
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:
Hexyl cinnamal,4-tert-butylcyclohexyl acetate, Alpha isomethyl ionone, Tetramethyl acetyloctahydronaphthalenes, (3E)-3,4,5,6,6-pentamethylhept-3-en-2-one; (3R,5R)-3,5,6,6-tetramethyl-4-methylideneheptan-2-one; (3R,5S)-3,5,6,6-tetramethyl-4-methylideneheptan-2-one.

Content of VOC ready to use condition: 60,00 %

UFI: MXT0-T0AH-8002-EHKD

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
Hydrocarbons, C4, 1,3-butadiene-free, polymd., triisobutylene fraction, hydrogenated	>= 50 < 75%	Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Chronic 4, H413	ND	93685-81-5	297-629-8	01-2119490725-29

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACh
		1 1 ATE oral = 5.000,0 mg/kg ATE dermal = 2.000,0 mg/kg ATE inhal = 4.951,0mg/l/4 h				
α-Hexylcinnamaldehyde	>= 5 < 15%	Skin Sens. 1, H317; Aquatic Chronic 2, H411 ATE oral = 2.450,0 mg/kg	ND	101-86-0	202-983-3	01-2119533092-50
3-methyl-4-(2,6,6-trimethylcyclohex-2-enyl)but-3-en-2-one - FEMA 2714	>= 1 < 5%	Skin Irrit. 2, H315; Skin Sens. 1, H317; Eye Irrit. 2, H319; Aquatic Chronic 2, H411 ATE oral = 5.000,0 mg/kg ATE dermal = 5.000,0 mg/kg	ND	127-51-5	204-846-3	NR
4-tert-Butylcyclohexyl acetate - FEMA 0	>= 1 < 5%	Skin Sens. 1B, H317; Aquatic Chronic 2, H411 1 1 ATE oral = 5.000,0 mg/kg ATE dermal = 5.000,0 mg/kg	ND	32210-23-4	250-954-9	01-2119976286-24
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one - FEMA 0	>= 1 < 5%	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	01-2119539433-40-0000
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	01-2119638272-42
2,6-dimethyloct-7-en-2-ol - FEMA 0	>= 1 < 5%	Skin Irrit. 2, H315; Eye Irrit. 2, H319 ATE oral = 3.600,0 mg/kg ATE dermal = 5.000,0 mg/kg	ND	18479-58-8	242-362-4	01-2119457274-37
Dimethyl benzyl carbinyl acetate (alpha,alpha-Dimethylphenethyl acetate) - FEMA 2392	>= 1 < 5%	Aquatic Chronic 3, H412 1 1	ND	151-05-3	205-781-3	NR
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

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACh
		ATE oral = 3.250,0 mg/kg ATE dermal = 3.250,0 mg/kg				
Reaction mass of 2-methylbutyl salicylate and pentyl salicylate	>= 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	01-2119969444-27-0002
undecan-4-olide - FEMA 3091	>= 1 < 5%	Aquatic Chronic 2, H411 1 1 ATE oral = 18.500,0 mg/kg	ND	104-67-6	203-225-4	NR
1-(2,3,8,8-Tetramethyl-1,2,3,4,5,6,7,8-octahydronaphthalen-2-yl)ethanone - FEMA 0	>= 1 < 5%	Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Chronic 1, H410 1 1 ATE oral = 5.000,0 mg/kg ATE dermal = 5.000,0 mg/kg	ND	54464-57-2	259-174-3	01-2119489989-04
(Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one - FEMA 0	>= 1 < 5%	Aquatic Acute 1, H400; Aquatic Chronic 1, H410 ATE oral = 2.000,0 mg/kg ATE dermal = 2.000,0 mg/kg	606-092-00-4	34902-57-3	422-320-3	01-0000016883-62
(3E)-3,4,5,6,6-pentamethylhept-3-en-2-one; (3R,5R)-3,5,6,6-tetramethyl-4-methylideneheptan-2-one; (3R,5S)-3,5,6,6-tetramethyl-4-methylideneheptan-2-one	>= 1 < 5%	Skin Sens. 1B, H317; Aquatic Chronic 2, H411 1 1	ND	ND	939-627-8	01-2119980043-42-0000
4-Methyl-3-decen-5-ol - FEMA 0	>= 0,1 < 1%	Aquatic Acute 1, H400; Aquatic Chronic 2, H411 1 1 ATE oral = 5.000,0 mg/kg	ND	81782-77-6	279-815-0	01-2119983528-21
1-(1,2,3,4,6,7,8,8a-Octahydro-2,3,8,8-tetramethyl-2-naphtyl)ethan-1-one	>= 0,1 < 1%	Skin Corr. 2, H315; Skin Sens. 1, H317; Aquatic Chronic 2, H411 1 1	ND	68155-67-9	268-979-9	NR
1-(1,2,3,5,6,7,8,8a-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	>= 0,1 < 1%	Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Chronic 1, H410 1 1 ATE oral = 5.000,0 mg/kg ATE dermal = 5.000,0 mg/kg	ND	68155-66-8	268-978-3	01-2119489989-04-0000

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACh

Fractionated global values

H226	= 60,00	H304	= 60,00	H413	= 60,00	H317	= 12,52
H411	= 13,72	H302	= 3,90	H400	= 7,40	H410	= 7,00
H319	= 2,22	H315	= 6,12	H412	= 3,40		

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).:
In case of contact with skin, wash immediately with water and soap.

Direct contact with eyes (of the pure product).:
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 or rash occurs: 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. Suitable: LaTeX, nitrile, PVC
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
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

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

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

- Substance: 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/m3)
Systemic effects Long term Workers dermal = 60 (mg/kg bw/day)
Systemic effects Long term Consumers inhalation = 6,5 (mg/m3)
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: 1-(2,3,8,8-Tetramethyl-1,2,3,4,5,6,7,8-octahydronaphthalen-2-yl)ethanone
DNEL
Systemic effects Long term Workers inhalation = 1,76 (mg/m3)
Systemic effects Long term Workers dermal = 1,73 (mg/kg bw/day)
Systemic effects Short term Workers inhalation = 1,76 (mg/m3)
Systemic effects Short term Workers dermal = 1,73 (mg/kg bw/day)
PNEC
Sweet water = 0,0028 (mg/l)
sediment Sweet water = 3,73 (mg/kg/sediment)
Sea water = 0,00028 (mg/l)
sediment Sea water = 0,75 (mg/kg/sediment)
ground = 0,705 (mg/kg ground)

- Substance: 1-(1,2,3,4,6,7,8,8a-Octahydro-2,3,8,8-tetramethyl-2-naphtyl)ethan-1-one
DNEL

Systemic effects Short term Workers dermal = 1,73 (mg/kg bw/day)
Systemic effects Short term Consumers oral = 1,76 (mg/kg bw/day)
Local effects Short term Workers dermal = 0,1011 (mg/kg bw/day)
PNEC
Sweet water = 0,0028 (mg/l)
sediment Sweet water = 3,73 (mg/kg/sediment)
Sea water = 0,00028 (mg/l)
sediment Sea water = 0,75 (mg/kg/sediment)
ground = 0,705 (mg/kg ground)

- Substance: 1-(1,2,3,5,6,7,8,8a-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
DNEL
Systemic effects Short term Workers inhalation = 1,76 (mg/m3)
Systemic effects Short term Workers dermal = 1,73 (mg/kg bw/day)
PNEC
Sweet water = 0,0028 (mg/l)
sediment Sweet water = 3,73 (mg/kg/sediment)
Sea water = 0,00028 (mg/l)
sediment Sea water = 0,75 (mg/kg/sediment)
ground = 0,705 (mg/kg ground)

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
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.

(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	Solid	
Colour	Pink	
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)	nonflammable	
Upper/lower flammability or explosive limits	not determined	
Vapour pressure	not determined	
Vapour density	not determined	
Relative density	irrelevant	
Solubility	irrelevant	
Water solubility	irrelevant	
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: 60,00 %

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 = 29.262,1 mg/kg
ATE(mix) dermal = ∞
ATE(mix) inhal = ∞

(a) acute toxicity: α-Hexylcinnamaldehyde: Oral (rat) LD50: 2450 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.
2,6-dimethyloct-7-en-2-ol: LD50 Oral - rat - 3,600 mg/kg
LD50 Dermal - rabbit - > 5,000 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
1-(2,3,8,8-Tetramethyl-1,2,3,4,5,6,7,8-octahydronaphthalen-2-yl)ethanone: TOXIC DOSE 1-LD > 50 5000 mg/kg (oral rat)
TOXIC DOSE 2-LD > 50 5000 mg/kg (skn-rbt)
(b) skincorrosion/irritation: benzyl acetate: Skin - rabbit - Irritating to skin - 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
benzyl acetate: Skin-rabbit-skin irritant-24 h
2,6-dimethyloct-7-en-2-ol: Skin - rabbit
Result: Mild skin irritation - 24 h
(Draize Test)
undecan-4-olide: kn-rbt 100 mg/24H SEV
skn-gpg 100 mg/24H MOD

(c) serious eye damage/irritation: 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.
2,6-dimethyloct-7-en-2-ol: Eyes - rabbit
Result: Moderate eye irritation
(Draize Test)
(d) respiratoryorskinsensitisation: The product, if brought into contact with skin can cause skin sensitization.
2,6-dimethyloct-7-en-2-ol: Maximisation Test
Did not cause sensitisation on laboratory anima
(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.
benzyl acetate: Laboratory tests revealed mutagenic effects.
Genotoxicity in vitro lymphocyte-topo-
mutation in mammalian somatic cells
In vitro genotoxicity-Hamster-Lungs
Cytogenetic analysis
undecan-4-olide: dnr-bcs 10 mg/disc
(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) eproductivetoxicity: 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 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.

Health hazards:
Contact with eyes: Accidental contact of the product with the eyes can cause irritation.
Skin contact: The product is not an irritant. Repeated and prolonged direct contact can degrease and irritate the skin causing dermatitis in some cases.
Ingestion: The ingested product can cause irritation of the mucous membranes of the throat and digestive system with consequent abnormal digestive symptoms and intestinal disorders.
Inhalation: Prolonged exposure to vapors or mists of the product can cause irritation to the respiratory tract.

Related to contained substances:
Hydrocarbons, C4, 1,3-butadiene-free, polymd., triisobutylene fraction, hydrogenated:
LD50 (rat) Oral (mg/kg body weight) = 5000
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2000
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 4951

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

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

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

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

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

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

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

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

undecan-4-olide:
LD50 (rat) Oral (mg/kg body weight) = 18500

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

(Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one:
LD50 (rat) Oral (mg/kg body weight) = 2000
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2000

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

1-(1,2,3,5,6,7,8,8a-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one:
Acute oral toxicity
LD50 rat
Dose: > 5,000 mg/kg
Method: OECD Test Guideline 401
Remarks: IFF

Acute dermal toxicity
LD50 rat
Dose: > 5,000 mg/kg
Method: OECD Test Guideline 402
LD50 (rat) Oral (mg/kg body weight) = 5000
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

Hydrocarbons, C4, 1,3-butadiene-free, polymd., triisobutylene fraction, hydrogenated:
Related to contained substances:
Hydrocarbons, C4, 1,3-butadiene-free, polymd., triisobutylene fraction, hydrogenated:
C(E)L50 (mg/l) = 1000
NOEC (mg/l) = 1000

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

3-methyl-4-(2,6,6-trimethylcyclohex-2-enyl)but-3-en-2-one:
Rainbow Trout (average length, 5.8 cm), acclimatized for 12 days, were exposed to a series of 5 test concentrations of 0, 7.8, 10.9, 15.3, 21.4, or 30 mg/L dispersed in Polysorbate 80 (10 mg/L) for 96 hours at 17.1 °C. Control fish were

exposed to Polysorbate 80 (10 mg/L). Fish were observed twice daily for mortality and symptoms. pH values and water temperature were monitored after substance addition at 24 hour intervals. Dissolved oxygen was measured at the beginning of the experiment and at 96 hours.
LC50 = 10.9 mg/L
Daphnia magna 48h - LC50 = 0.597 mg/L
72 hr EC50=7.47 mg/L based on average specifc growth rate;
C(E)L50 (mg/l) = 0,597

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-(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

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

2,6-dimethyloct-7-en-2-ol:
96 Hour LC50 = 4.81 mg/l EPA ECOSAR
Daphnia magna 48 hrs LC50 = 5.70 mg
Green algae 96 hr NOEC, LOEC or NOEL, LOEL EC50 = 3.88 mgl
C(E)L50 (mg/l) = 4,81

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

undecan-4-olide:
Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 569 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 17.0 mg/l - 48 h
C(E)L50 (mg/l) = 17

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

Note:: static test method: OECD TG201
C(E)L50 (mg/l) = 1,3

(Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-one:
C(E)L50 (mg/l) = 0,48

1-(1,2,3,5,6,7,8,8a-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one:
Toxicity to fish:
semi-static test LC50
Species: Lepomis macrochirus (Bluegill sunfish)
Dose: 1.3 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates.:
semi-static test EC50
Species: Daphnia magna (Water flea)
Dose: 1.38 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
IFF

C(E)L50 (mg/l) = 1,3
NOEC (mg/l) = 100

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

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

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

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. (α-Hexylcinnamaldehyde, acetato di 4-terz-butilcicloesile, 1-(5,6,7,8-tetraidro-3,5,5,6,8,8-esametil-2-naftil) etan-1-one, 3-metil-4-(2,6,6-trimetilcicloes-2-enil)but-3-en-2-one, acetato di benzile, Dimethyl benzyl carbinyl acetate (alpha,alpha-Dimethylphenethyl acetate), 1,3,4,6,7,8-esaidro-4,6,6,7,8,8-esametillinden[5,6-c]pirano, gamma-Undecalactone, 1',2',3',4',5',6',7',8'-ottaidro-2',3',8',8'-tetrametil-2'-acetonaftone, (Z)-ossacicloesadec-(12)-en-2-one e b) (Z)-ossacicloesadec-(13)-en-2-one,)
ADR/RID/IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (α-Hexylcinnamaldehyde, 4-tert-Butylcyclohexyl acetate, 1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one, 3-methyl-4-(2,6,6-trimethylcyclohex-2-enyl)but-3-en-2-one, benzyl acetate, Dimethyl benzyl carbinyl acetate (alpha,alpha-Dimethylphenethyl acetate), 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran, undecan-4-olide, 1-(2,3,8,8-Tetramethyl-1,2,3,4,5,6,7,8-octahydronaphthalen-2-yl)ethanone, (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-o)
ICAO-IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (α-Hexylcinnamaldehyde, 4-tert-Butylcyclohexyl acetate, 1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one, 3-methyl-4-(2,6,6-trimethylcyclohex-2-enyl)but-3-en-2-one, benzyl acetate, Dimethyl benzyl carbinyl acetate (alpha,alpha-Dimethylphenethyl acetate), 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran, undecan-4-olide, 1-(2,3,8,8-Tetramethyl-1,2,3,4,5,6,7,8-octahydronaphthalen-2-yl)ethanone, (Z)-oxacyclohexadec-(12)-en-2-one and b) (Z)-oxacyclohexadec-(13)-en-2-o)

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:
E1 - 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

Description of the hazard statements exposed to point 3
H226 = Flammable liquid and vapour.
H304 = May be fatal if swallowed and enters airways.
H413 = May cause long lasting harmful effects to aquatic life.
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.
H302 = Harmful if swallowed.
H400 = Very toxic to aquatic life.
H410 = Very toxic to aquatic life with long lasting effects.
H412 = Harmful to aquatic life with long lasting effects.

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.