

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

1.1. Product identifier

Product code : Hygienfresh GocceBucato con Ammorbidente – Tea Tree
Trades code : A47-015
Product line: Hygienfresh

UFI: RVD1-K0KG-800G-PVCV

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

Laundry Drops with Softener - Fragrance with fixative for extra performance
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. 1A, 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

- P261 - Avoid breathing vapours.
- P273 - Avoid release to the environment.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response

- P302+P352 - IF ON SKIN: Wash with plenty of water and soap.
- 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:

aqua, parfum, dihydrogenated tallow hydroxyethylmonium methosulfate, hexyl cinnamal, limonene, 4-tert-butylcyclohexyl acetate, isopropyl alcohol, linalool, benzyl salicylate, linalyl acetate, citronellol, citral, geraniol, benzalkonium chloride, coumarin, isoeugenol, dimethicone, steareth-21, alcohol, amines, c12-16-alkyldimethyl.

Contains (Reg.EC 648/2004):

15% < 30% perfumes, 5% < 15% cationic surfactants, < 5% D-Limonene ((S)-p-menta-1,8-diene), a-Hexylcinnamaldehyde, Linalool, Benzyl salicylate, Citronellol, Citrale, Geraniol, Coumarin, Isoeugenol, 15% < 30% perfumes, 5% < 15% cationic surfactants, < 5% D-Limonene ((S)-p-menta-1,8-diene), a-Hexylcinnamaldehyde, Linalool, Benzyl salicylate, Citronellol, Citrale, Geraniol, Coumarin, Isoeugenol

Content of VOC ready to use condition: 2,91 %

UFI: RVD1-K0KG-800G-PVCV

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 |
|--|---------------------|---|--------------|-------------|-----------|-------------------------------|
| Fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized | >= 5 < 15% | ATE oral = 5.000,0 mg/kg ATE dermal = 2.000,0 mg/kg | ND | 157905-74-3 | 931-203-0 | 01-2119463 889-16-000 4 |
| dipentene Note: C | >= 1 < 5% | Flam. Liq. 3, H226; Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 1 ATE oral = 4.400,0 mg/kg ATE dermal = 5.000,0 mg/kg | 601-029-00-7 | 5989-27-5 | 205-341-0 | 01-2119529 223-47-000 1 |
| 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 | 01-2119457 274-37 |
| α-Hexylcinnamaldehyde | >= 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 |
| 4-tert-Butylcyclohexyl acetate - FEMA 0 | >= 0,1 < 1% | 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 |
| Linalool | >= 0,1 < 1% | Skin Irrit. 2, H315; Skin Sens. 1B, H317; Eye Irrit. 2, H319 ATE oral = 2.790,0 mg/kg ATE dermal = 5.610,0 mg/kg ATE inhal = 307,0mg/l/4 h | 603-235-00-2 | 78-70-6 | 201-134-4 | 01-2119474 016-42-000 0 |
| Reaction mass of 2-methylbutyl salicylate and pentyl salicylate | >= 0,1 < 1% | 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 |
| 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran | >= 0,1 < 1% | Aquatic Acute 1, H400; Aquatic Chronic 1, H410 ATE oral = 3.250,0 | 603-212-00-7 | 1222-05-5 | 214-946-9 | 01-2119488 227-29-000 0 |

| Substance | Concentration[w/w] | Classification | Index | CAS | EINECS | REACH |
|--|---------------------|--|--------------|------------|-----------|-------------------------------|
| | | mg/kg ATE dermal = 3.250,0 mg/kg | | | | |
| Benzyl salicylate | >= 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 |
| Linalyl acetate - FEMA 2636 | >= 0,1 < 1% | Skin Irrit. 2, H315; Skin Sens. 1B, H317; Eye Irrit. 2, H319; Aquatic Chronic 2, H411 1 1 ATE oral = 14.550,0 mg/kg ATE dermal = 13.360,0 mg/kg | ND | 115-95-7 | 204-116-4 | 01-2119454 789-19-000 0 |
| Citronellol | >= 0,1 < 1% | Skin Irrit. 2, H315; Skin Sens. 1B, H317; Eye Irrit. 2, H319; STOT SE 3, H335 ATE oral = 3.450,0 mg/kg ATE dermal = 2.650,0 mg/kg ATE inhal = 1,3mg/l/4 h | ND | 106-22-9 | 203-375-0 | 01-2119453 995-23-000 0 |
| citral | >= 0,1 < 1% | Skin Irrit. 2, H315; Skin Sens. 1, H317 ATE oral = 4.960,0 mg/kg ATE dermal = 2.250,0 mg/kg | 605-019-00-3 | 5392-40-5 | 226-394-6 | 01-2119462 829-23-000 1 |
| cineole - FEMA 2465 | >= 0,1 < 1% | Flam. Liq. 3, H226; Skin Sens. 1B, H317 ATE oral = 2.480,0 mg/kg ATE dermal = 5.000,0 mg/kg | ND | 470-82-6 | 207-431-5 | 01-2119967 772-24 |
| Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides - FEMA 0 | >= 0,1 < 1% | Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Corr. 1B, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400 100 100 ATE oral = 344,0 mg/kg ATE dermal = 3.340,0 mg/kg ATE inhal = 5,0mg/l/4 h | ND | 68424-85-1 | 270-325-2 | NR |
| Isoeugenol | >= 0,01 < 0,1% | Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1A, H317; Eye Irrit. 2, H319 | 604-094-00-X | 97-54-1 | 202-590-7 | NR |

| Substance | Concentration[w/w] | Classification | Index | CAS | EINECS | REACH |
|-----------|--------------------|--|--------------|---------|-----------|----------------------|
| | | Limits: Skin Sens. 1A, H317 %C >=0,01; | | | | |
| ethanol | < 0,1% | Flam. Liq. 2, H225 ATE oral = 7.060,0 mg/kg ATE dermal = 20.000,0 mg/kg ATE inhal = 20.000,0mg/l/4 h | 603-002-00-5 | 64-17-5 | 200-578-6 | 01-2119457 610-43 |

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 gloves and protective clothing

6.1.2 For emergency responders:
Wear gloves and protective clothing
Eliminate all unguarded flames and possible sources of ignition. No smoking.
Provision of sufficient ventilation.
Evacuate the danger area and, in case, consult an expert.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

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

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

6.3.3 Other information:
None in particular.

6.4. Reference to other sections

Refer to paragraphs 8 and 13 for more information

SECTION 7. Handling and storage

7.1. Precautions for safe handling

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

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

Private households (= general public = consumers):

Handle with care.

Store in ventilated place away from heat sources,

Keep the container tightly closed.

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

Handle with care. Store in a ventilated area and away from heat, keep the container tightly closed.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Related to contained substances:

dipentene:

TWA: 30 from AIHA

TWA: 165.5 (mg/m³) from AIHA

ethanol:

Component CAS-No. Value Control parameters

Basis

Ethanol-17-64 TWA 5 ppm 1.000

1.920 mg/m³

UK. EH40 WEL-Workplace Exposure Limits

Remarks Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used

- Substance: Fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized

DNEL

Systemic effects Long term Workers inhalation = 44 (mg/m³)

Systemic effects Long term Workers dermal = 312,5 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 13 (mg/m³)

Systemic effects Long term Consumers dermal = 187,5 (mg/kg bw/day)

Systemic effects Long term Consumers oral = 7,5 (mg/kg bw/day)

PNEC

Sweet water = 0,00191 (mg/l)

sediment Sweet water = 0,58 (mg/kg/sediment)

Sea water = 0,000191 (mg/l)

sediment Sea water = 0,058 (mg/kg/sediment)

intermittent emissions = 0,0191 (mg/l)

STP = 2,96 (mg/l)

ground = 0,115 (mg/kg ground)

- Substance: α -Hexylcinnamaldehyde

DNEL

Systemic effects Long term Workers inhalation = 0,000078 (mg/m³)

Systemic effects Short term Workers inhalation = 0,00628 (mg/m³)

PNEC

Sweet water = 0,03 (mg/l)

sediment Sweet water = 47,7 (mg/kg/sediment)

Sea water = 0,003 (mg/l)

sediment Sea water = 4,77 (mg/kg/sediment)

ground = 9,51 (mg/kg ground)

- Substance: Linalool

DNEL

Systemic effects Long term Workers inhalation = 2,8 (mg/m³)
Systemic effects Long term Workers dermal = 2,5 (mg/kg bw/day)
Systemic effects Long term Consumers inhalation = 0,7 (mg/m³)
Systemic effects Long term Consumers dermal = 1,25 (mg/kg bw/day)
Systemic effects Long term Consumers oral = 0,2 (mg/kg bw/day)

- Substance: 1,3,4,6,7,8-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: 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: Citronellol

DNEL

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

- Substance: Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

DNEL

Systemic effects Long term Workers inhalation = 3,96 (mg/m³)
Systemic effects Long term Workers dermal = 5,7 (mg/kg bw/day)
Systemic effects Long term Consumers inhalation = 1,64 (mg/m³)
Systemic effects Long term Consumers dermal = 3,4 (mg/kg bw/day)
Systemic effects Long term Consumers oral = 3,4 (mg/kg bw/day)

PNEC

Sweet water = 0,0009 (mg/l)
sediment Sweet water = 12,27 (mg/kg/sediment)
Sea water = 0,00096 (mg/l)
sediment Sea water = 13,09 (mg/kg/sediment)
intermittent emissions = 0,00016 (mg/l)
STP = 0,4 (mg/l)
ground = 7 (mg/kg ground)

- Substance: ethanol

DNEL

Systemic effects Long term Workers inhalation = 950 (mg/m³)
Systemic effects Long term Workers dermal = 343 (mg/kg bw/day)
Systemic effects Long term Consumers inhalation = 114 (mg/m³)
Systemic effects Long term Consumers dermal = 206 (mg/kg bw/day)
Systemic effects Long term Consumers oral = 87 (mg/kg bw/day)

PNEC

Sweet water = 0,96 (mg/l)

sediment Sweet water = 3,6 (mg/kg/sediment)
Sea water = 0,79 (mg/l)
sediment Sea water = 2,9 (mg/kg/sediment)
intermittent emissions = 2,75 (mg/l)
STP = 580 (mg/l)
ground = 0,63 (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

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

Full contact

Material: nitrile rubber
minimum thickness: 0.11 mm
permeation time: 480 min

(ii) Other

When handling the pure product wear full protective skin clothing.

(c) Respiratory protection

Not needed for normal use.

(d) Thermal hazards

No hazard to report

Environmental exposure controls:

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 | Liquid | |
| Colour | white | |
| Odour | characteristic | |
| Odour threshold | not determined | |
| pH | 3-4 | |
| Melting point/freezing point | not determined | |
| Initial boiling point and boiling range | not determined | |
| Flash point | > 65 °C | |
| Evaporation rate | irrelevant | |
| Flammability (solid, gas) | irrelevant | |
| Upper/lower flammability or explosive limits | not determined | |
| Vapour pressure | not determined | |
| Vapour density | not determined | |
| Relative density | 0,95 - 1,00 g/cm ³ @ 20 °C | |
| Solubility | Completely soluble in water | |
| Water solubility | not determined | |
| Partition coefficient: n-octanol/water | not determined | |
| Auto-ignition temperature | not determined | |
| Decomposition temperature | not determined | |
| Viscosity | undefined | |
| Explosive properties | not explosive | |
| Oxidising properties | non-oxidizing | |

9.2. Other information

Content of VOC ready to use condition: 2,91 %

SECTION 10. Stability and reactivity
10.1. Reactivity

No reactivity hazards

10.2. Chemical stability

No hazardous reaction when handled and stored according to provisions.

10.3. Possibility of hazardous reactions

There are no hazardous reactions

10.4. Conditions to avoid

Nothing to report

10.5. Incompatible materials

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

It can generate toxic gases to contact with inorganic sulfide, strong reducing agents.

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 = 140.784,7 mg/kg

ATE(mix) dermal = ∞

ATE(mix) inhal = ∞

(a) acute toxicity: 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

2,6-dimethyloct-7-en-2-ol: LD50 Oral - rat - 3,600 mg/kg

LD50 Dermal - rabbit - > 5,000 mg/kg

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.

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

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

Citronellol: orl-rat LD50:3450 mg/kg

skn-rbt LD50:2650 mg/kg

ihl-rat LCLo:1.3 mg/m³/4H

ethanol: LD50 Oral-rat-7.060 mg/kg

Remarks: Lungs, Thorax, or Respiration: Other changes.

LC50 Inhalation-rat-10:0-20000 ppm

(b) skin corrosion/irritation: 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

Benzyl salicylate: Skin - rabbit

Result: No skin irritation

(OECD Test Guideline 404)

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.

Citronellol: skn-rbt 100 mg/24H SEV

Skin - Human - Skin irritation - 48 h

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides: rabbit Result: Method: DOT Corrosive

Exposure time: 12:0 am

ethanol: Skin-rabbit

Result: Irritating to skin. -12:0 am

(c) serious eye damage/irritation: ethanol: Eyes-rabbit

Result: Mild eye irritation-12:0 am

(Draize Test)

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.

Benzyl salicylate: Eyes - In vitro study

Result: Moderate eye irritation

(OECD Test Guideline 437)

Eyes - rabbit

Result: Irritating to eyes.

(Draize Test)

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides: rabbit Result: Caustic Method: DOT (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 animals

Citronellol: mouse - May cause sensitization by skin contact.

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides: Buehler guinea pig Test Classification:

Did not cause sensitization on laboratory animals.

Result: not sensitizing Method: OECD Test Guideline 406

(e) germ cell mutagenicity: 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)

(f) carcinogenicity: 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) 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)
ethanol: Reproductive toxicity-Human-female-Oral

Effects on Newborn: Apgar score (human only). Effects on Newborn: Other measures or neonatal effects.

Effects on Newborn: Drug dependence.

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

(i) specific target organ toxicity (STOT) repeated exposure 4-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 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)

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:

Fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized:

Oral, LD50: 5000 mg / kg (rat)

Dermal, LD50:> 2000 mg / kg (rat)

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

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2000

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 be 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

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

α -Hexylcinnamaldehyde:

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

4-tert-Butylcyclohexyl acetate:

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

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

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

Reaction mass of 2-methylbutyl salicylate and pentyl salicylate:

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

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

Benzyl salicylate:

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

Linalyl acetate:

LD50 (rat) Oral (mg/kg body weight) = 14550

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 13360

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

citral:

LD50 (rat) Oral (mg/kg body weight) = 4960

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2250

cineole:

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

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

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:

LD50 (rat) Oral (mg/kg body weight) = 344

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 3340

CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 5

ethanol:

ROUTES of EXPOSURE: the substance can be absorbed into the body by inhalation of its fumes and ingestion.

INHALATION RISK: A harmful contamination of the air will be reached quite slowly due to evaporation of the substance at 20 C.

Effects of short-term exposure: the substance is irritating to the eyes. Inhalation of high vapour can cause irritation of the eyes and respiratory tract. The substance may cause effects on the central nervous system effects of REPEATED EXPOSURE or long term: the liquid degreasing the skin features. The substance may have an effect on the high central nervous system respiratory tract, causing irritation, headaches, fatigue and lack of concentration. See Notes.

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

CUTE CUTE.

EYE Redness. Pain. Burning.

SWALLOWED burning sensation. Headaches. Confusion. Vertigo. State of unconsciousness.

NOT and consumption of ethanol during pregnancy can have adverse effects on the unborn child. Chronic ethanol ingestion can cause cirrhosis of the liver.

LD50 (rat) Oral (mg/kg body weight) = 7060

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 20000

CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 20000

11.2. Information on other hazards

No data available.

SECTION 12. Ecological information

12.1. Toxicity

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:

Related to contained substances:

Fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized:

fish, CL50 : 1,91 mg/l (OECD 203 (96h))

daphnia, CE50 : 2,23 mg/l (EU Method C.2 (48h))

alga, CI50 : 2,14 mg/l (OECD 201 (72h))

C(E)L50 (mg/l) = 1,91

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

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

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

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

Linalool:

Fish: 96h LC50:39 mg/L (*Oryzias latipes*)

Crustacea: 48h EC50:52 mg/L (*Daphnia magna*)

Algae: 72h EC50:28 mg/L (*Selenastrum capricornutum*)

C(E)L50 (mg/l) = 27,799999

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

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

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

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

citral:
Oryzias latipes OECD TG 203 LC50 (96 h): 4.1 mg/L
Other Daphnia magna EC50 (72 hours) = 7 mg/L
Senastrum capricornutum Other EC50 (72hr) = 5 mg/L
C(E)L50 (mg/l) = 4,1

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

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

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

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

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

12.2. Persistence and degradability

Related to contained substances:

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

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

citral:
OECD TG 301 c Readily biodegradable
1/2 T Photodegradation = 1.14 years (direct) T 1/2 = 2.83 hours (indirect)

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:
Biodegradability:

OECD Confirmatory > 90% Test Method: OECD 303 A Modified SCAS Test Exposure time: 99% 7 d > Method: OECD Test 302 Evolution CO2 Concentration: 5 mg/litre Exposure time: 28 d Result: Readily biodegradable.
95.5% Method: OECD 301 B

12.3. Bioaccumulative potential

Related to contained substances:

Linalool:
106

citral:
None

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

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 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. (dipentene, acetato di 4-terz-butilicloesile, α -Hexylcinnamaldehyde, 1,3,4,6,7,8-esaidro-4,6,6,7,8,8-esametillinden[5,6-c]pirano, Cineolo, Salicilato di benzile, Olio di pino, Coumarin, pin-2(3)-eno, Composti di ammonio quaternario, benzil-C12-16-alchildimetil, cloruri, etanolo)

ADR/RID/IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (dipentene, 4-tert-Butylcyclohexyl acetate, α -Hexylcinnamaldehyde, 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran, cineole, Benzyl salicylate, Pine oil, Coumarin, pin-2(3)-ene, Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides, ethanol)

ICAO-IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (dipentene, 4-tert-Butylcyclohexyl acetate, α -Hexylcinnamaldehyde, 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran, cineole, Benzyl salicylate, Pine oil, Coumarin, pin-2(3)-ene, Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides, ethanol)

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:
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.
H315 = Causes skin irritation.
H317 = May cause an allergic skin reaction.
H400 = Very toxic to aquatic life.
H410 = Very toxic to aquatic life with long lasting effects.
H319 = Causes serious eye irritation.
H411 = Toxic to aquatic life with long lasting effects.
H302 = Harmful if swallowed.

H412 = Harmful to aquatic life with long lasting effects.
H335 = May cause respiratory irritation.
H312 = Harmful in contact with skin.
H314 = Causes severe skin burns and eye damage.
H318 = Causes serious eye damage.
H225 = Highly flammable liquid and vapour.

Classification based on data of all mixture components

Main normative references:

Directive 1999/45/EC

Directive 2001/60/EC

Regulation 1272/2008/EC

Regulation 2010/453/EC

** The information contained herein is based on our knowledge at the date above.

Related solely to the product and do not constitute a guarantee of a particular quality.

It is the duty of the user to ensure that these are appropriate and complete information regarding the specific use intended.

This data sheet cancels and replaces any previous edition.
