

**SECTION 1. Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product code : Hygienfresh DeoEssenze Ambienti Clean Sense

Trades code : A74-027

Product line: Hygienfresh

UFI: EAA0-P0Q8-H000-1DHN

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

Deo essence multi-function environments. Smells, cleans and excited with just one spray

Sectors of use:

Industrial Manufacturing[SU3], 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](mailto:info@tintolav.com) - Sito internet: [www.tintolav.com](http://www.tintolav.com)

Email tecnico competente: [a.conedera@tintolav.com](mailto:a.conedera@tintolav.com)

National contact: Malta: Emergency Ambulance 112

Accident & Emergency Department 2545 4030

**1.4. Emergency telephone number**

The UK National Poisons Emergency number +44 (0)870 600 6266

London: Emergency 24 hour telephone +44 (0) 207188 0100

**SECTION 2. Hazards identification****2.1. Classification of the substance or mixture**

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:

GHS05, GHS07

Hazard Class and Category Code(s):

Skin Sens. 1A, Eye Dam. 1, Aquatic Chronic 3

Hazard statement Code(s):

H317 - May cause an allergic skin reaction.

H318 - Causes serious eye damage.

H412 - Harmful to aquatic life with long lasting effects.

The product, if brought into contact with skin can cause skin sensitization.

If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

The product is dangerous to the environment as it is harmful to aquatic life with long lasting effects

**2.2. Label elements**

Labelling according to Regulation (EC) No 1272/2008:

Pictogram, Signal Word Code(s):  
GHS05, GHS07 - DangerHazard statement Code(s):  
H317 - May cause an allergic skin reaction.  
H318 - Causes serious eye damage.  
H412 - Harmful 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.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTER/doctor/physician

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

Disposal

P501 - Dispose of contents / container in accordance with local and national regulations.

Contains:

aqua, trideceth-12, parfum, ethoxydiglycol, ricinus communis oil, isopropyl alcohol, Cyclamen aldehyde, Tetrahydrolinalool, amyl cinnamal, citronellol, Tetrasodium EDTA, alcohol, 4-tert-butylcyclohexyl acetate, methylundecanal, Cinnamyl alcohol, Geraniol, Hexyl cinnamal, Isoeugenol, Alpha isomethyl ionone, dimethicone, steareth-21, methylchloroisothiazolinone, methylisothiazolinone.

Contains (Reg.EC 648/2004):

5% &lt; 15% perfumes, non-ionic surfactants, &lt; 5% Miscela di: 5-cloro-2-metil-2H-isotiazol-3-one [EC no. 247-500-7]; 2-metil-2H-isotiazol-3-one [EC no. 220-239-6] (3:1), Amyl cinnamal, Citronellol, Cinnamyl alcohol, Geraniol, a-Hexylcinnamaldehyde, Isoeugenol, Alpha isomethyl ionone

Content of VOC ready to use condition: 7,37 %

UFI: EAA0-P0Q8-H000-1DHN

**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

Irrelevant

### 3.2 Mixtures

Refer to paragraph 16 for full text of hazard statements

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACH
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy; Isotridecanol, ethoxylated - FEMA 0	$\geq 5 < 15\%$	Acute Tox. 4, H302; Eye Dam. 1, H318	ND	24938-91-8	ND	NR
Propan-2-ol - FEMA 2929	$\geq 1 < 5\%$	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336 ATE oral = 2.100,0 mg/kg ATE dermal = 2.100,0 mg/kg ATE inhal = 29,0mg/l/4 h	603-117-00-0	67-63-0	200-661-7	NR
2-benzylideneheptanal	$\geq 0,1 < 1\%$	Skin Sens. 1, H317; Aquatic Chronic 2, H411 ATE oral = 3.730,0 mg/kg ATE dermal = 2.000,0 mg/kg	ND	122-40-7	204-541-5	NR
Citronellol	$\geq 0,1 < 1\%$	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
ethanol	$\geq 0,1 < 1\%$	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
Cinnamyl alcohol	$\geq 0,1 < 1\%$	Skin Sens. 1, H317 ATE oral = 2.000,0 mg/kg ATE dermal = 5.000,0 mg/kg	ND	104-54-1	ND	NR
2-Methyl-3-(p-isopropylphenyl)propionaldehyde - FEMA 2743	$\geq 0,1 < 1\%$	Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Chronic 2, H411 1 1 ATE oral = 3.810,0 mg/kg ATE dermal = 5.000,0	ND	103-95-7	203-161-7	01-2119970 582-32-000 0

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACH
		mg/kg				
3,7-dimethyloctan-3-ol - FEMA 3060	$\geq 0,1 < 1\%$	Skin Irrit. 2, H315; Skin Sens. 1B, H317; Eye Irrit. 2, H319 ATE oral = 5.000,0 mg/kg ATE dermal = 4.500,0 mg/kg ATE inhal = 0,9mg/l/4 h	ND	78-69-3	201-133-9	01-2119638 275-36
Geraniol - FEMA 2507	$\geq 0,1 < 1\%$	Skin Irrit. 2, H315; Skin Sens. 1, H317; Eye Dam. 1, H318 ATE oral = 3.500,0 mg/kg ATE dermal = 5.000,0 mg/kg ATE inhal = 0,5mg/l/4 h	603-241-00-5	106-24-1	203-377-1	01-2119552 430-49-000 0
4-tert-Butylcyclohexyl acetate - FEMA 0	$\geq 0,1 < 1\%$	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
2-Methylundecanal - FEMA 2749	$\geq 0,1 < 1\%$	Skin Irrit. 2, H315; Skin Sens. 1B, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 1 1 ATE oral = 5.000,0 mg/kg ATE dermal = 10.000,0 mg/kg	ND	110-41-8	203-765-0	01-2119969 443-29-000 0
$\alpha$ -Hexylcinnamaldehyde	$\geq 0,1 < 1\%$	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
Isoeugenol	$\geq 0,01 < 0,1\%$	Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1A, H317; Eye Irrit. 2, H319 Limits: Skin Sens. 1A, H317 %C $\geq 0,01$ ;	604-094-00-X	97-54-1	202-590-7	NR
Dodecanal - FEMA 2615	$< 0,1\%$	Skin Irrit. 2, H315; Skin Sens. 1B, H317; Eye Irrit. 2, H319 ATE oral = 5.000,0 mg/kg	ND	112-54-9	203-983-6	01-2119969 441-33
3-(4-Isobutyl-2-methylphenyl)propanal	$< 0,1\%$	Skin Irrit. 2, H315; Skin Sens. 1B, H317; Eye Irrit. 2, H319; Acute Tox. 4, H332; Aquatic Chronic 2, H411	ND	1637294-12-2	811-285-3	01-2120103 156-71

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACH
		1 1 ATE oral = 2.000,0 mg/kg ATE dermal = 2.000,0 mg/kg ATE inhal = 5,0mg/l/4 h				
Citrus aurantifolia ext. - FEMA 0	< 0,1%	Flam. Liq. 3, H226; Asp. Tox. 1, H304; Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Chronic 2, H411 1 1 ATE oral = 50,0 mg/kg	ND	90063-52-8	290-010-3	01-2120138 646-51

## 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):

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 or rash occurs: Get medical advice/attention.

If medical advice is needed, have product container or label at hand.

Immediately call a POISON CENTER/doctor/physician

## SECTION 5. Firefighting measures

### 5.1. Extinguishing media

#### Advised extinguishing agents:

Water spray, CO2, foam, dry chemical, depending on the materials involved in the fire.

#### Extinguishing means to avoid:

Water jets. Use water jets only to cool the surfaces of the containers exposed to fire.

**5.2. Special hazards arising from the substance or mixture**

No data available.

**5.3. Advice for firefighters**

Use protection for the breathing apparatus

Safety helmet and full protective suit.

The spray water can be used to protect the people involved in the extinction

You may also use selfrespirator, especially when working in confined and poorly ventilated area and if you use halogenated extinguishers (Halon 1211 fluobrene, Solkan 123, NAF, etc...)

Keep containers cool with water spray

**SECTION 6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

6.1.1 For non-emergency personnel:

Leave the area surrounding the spill or release. Do not smoke

Wear mask, gloves and protective clothing.

6.1.2 For emergency responders:

Wear mask, gloves and protective clothing.

Eliminate all unguarded flames and possible sources of ignition. No smoking.

Provision of sufficient ventilation.

Evacuate the danger area and, in case, consult an expert.

**6.2. Environmental precautions**

Contain spill with earth or sand.

If the product has entered a watercourse in sewers or has contaminated soil or vegetation, notify it to the authorities.

Discharge the remains in compliance with the regulations

**6.3. Methods and material for containment and cleaning up**

6.3.1 For containment:

Rapidly recover the product, wear a mask and protective clothing

Recover the product for reuse, if possible, or for removal. Possibly absorb it with inert material.

Prevent it from entering the sewer system.

6.3.2 For cleaning up:

After wiping up, wash with water the area and materials involved

6.3.3 Other information:

None in particular.

**6.4. Reference to other sections**

Refer to paragraphs 8 and 13 for more information

**SECTION 7. Handling and storage****7.1. Precautions for safe handling**

Avoid contact and inhalation of vapors

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

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)**

Industrial Manufacturing:  
Handle with extreme caution.  
Store in a well ventilated place away from heat sources.

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:

Propan-2-ol:

TLV: TWA 200 ppm 400 ppm as STEL A4 (not classifiable as a human carcinogen); (ACGIH 2004).

MAK: 200 ppm 500 mg/m peak limitation Category: II (2); Risk group for pregnancy: C; (DFG 2004).

ethanol:

Component CAS-No. Value Control parameters

Basis

Ethanol-17-64 TWA 5 ppm 1.000

1.920 mg/m<sup>3</sup>

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: Propan-2-ol

DNEL

Systemic effects Long term Workers inhalation = 500 (mg/m<sup>3</sup>)

Systemic effects Long term Workers dermal = 888 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 89 (mg/m<sup>3</sup>)

Systemic effects Long term Consumers dermal = 26 (mg/kg bw/day)

Systemic effects Long term Consumers oral = 26 (mg/kg bw/day)

PNEC

Sweet water = 140,9 (mg/l)

sediment Sweet water = 552 (mg/kg/sediment)

Sea water = 140,9 (mg/l)

sediment Sea water = 552 (mg/kg/sediment)

intermittent emissions = 140,9 (mg/l)

STP = 2251 (mg/l)

ground = 28 (mg/kg ground)

- Substance: Citronellol

DNEL

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In conformity to Regulation (EU) 2020/878

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

- Substance: ethanol

DNEL

Systemic effects Long term Workers inhalation = 950 (mg/m<sup>3</sup>)

Systemic effects Long term Workers dermal = 343 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 114 (mg/m<sup>3</sup>)

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)

- Substance: Geraniol

DNEL

Systemic effects Long term Workers inhalation = 161,6 (mg/m<sup>3</sup>)- Substance:  $\alpha$ -Hexylcinnamaldehyde

DNEL

Systemic effects Long term Workers inhalation = 0,000078 (mg/m<sup>3</sup>)Systemic effects Short term Workers inhalation = 0,00628 (mg/m<sup>3</sup>)

PNEC

Sweet water = 0,03 (mg/l)

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

Sea water = 0,003 (mg/l)

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

ground = 9,51 (mg/kg ground)

- Substance: 3-(4-Isobutyl-2-methylphenyl)propanal

PNEC

Sweet water = 0,0064 (mg/l)

sediment Sweet water = 1,3 (mg/kg/sediment)

Sea water = 0,00064 (mg/l)

sediment Sea water = 0,13 (mg/kg/sediment)

intermittent emissions = 0,0101 (mg/l)

STP = 1 (mg/l)

ground = 0,256 (mg/kg ground)

## 8.2. Exposure controls

Appropriate engineering controls:

Industrial Manufacturing:

No specific monitoring foreseen

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

Handle with gloves. Gloves must be checked before use. Use a technique suitable for removing gloves (without touching the outer surface of the glove) to avoid the skin contact with this product. Dispose of contaminated gloves after use in accordance with current legislation and good laboratory practices. Wash and dry your hands. The selected protective gloves have to satisfy the requirements of EU directive 89/686 / EEC e the resulting EN 374 standards.

Full contact

Material: Nitrile rubber

minimum thickness: 0.11 mm

breakthrough time: 480 min

The choice of an appropriate glove depends not only on the material but also on other quality characteristics which vary from one manufacturer to another.

For the choice of the type of gloves to use consult the supplier / manufacturer of the gloves.

Observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.

(ii) Other

When handling the pure product wear full protective skin clothing.

(c) Respiratory protection

Not needed for normal use.

(d) Thermal hazards

No hazard to report

Environmental exposure controls:

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

## SECTION 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method
Appearance	Liquid	
Colour	colorless	
Odour	characteristic	
Odour threshold	not determined	
pH	7 - 8	
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	

Physical and chemical properties	Value	Determination method
Vapour pressure	not determined	
Vapour density	not determined	
Relative density	0,99 - 1,03 gr/cm3	
Solubility	Completely soluble in water	
Water solubility	Completely soluble in water	
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: 7,37 %

**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 = 8.002,3 mg/kg

ATE(mix) dermal =  $\infty$ ATE(mix) inhal =  $\infty$ 

(a) acute toxicity: 2-benzylideneheptanal: orl-rat LD50: 3730 mg / kg

The dermal LD50 value for alpha-amylcinnamaldehyde was calculated to be greater than 2000 mg/kg.

Citronellol: orl-rat LD50:3450 mg/kg

skn-rbt LD50:2650 mg/kg

ihl-rat LCLo:1.3 mg/m<sup>3</sup>/4h

ethanol: LD50 Oral-rat-7.060 mg/kg

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

LC50 Inhalation-rat-10:0-20000 ppm

Geraniol: LD50 Oral (rat) (mg / kg body weight) = 3500

LD50 Dermal (rabbit) (mg / kg body weight) =&gt; 5000

LC50 Inhalation (rat) of vapor / dust / aerosol / smoke (mg / l / 4h): 0.5

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.

 $\alpha$ -Hexylcinnamaldehyde: Oral (rat) LD50: 2450 mg/kg

(b) skin corrosion/irritation: Propan-2-ol: Skin-rabbit

Result: Mild skin irritation

2-benzylideneheptanal: skn-rbt 100 mg/24H SEV

skn-gpg 100 mg/24H MOD

Citronellol: skn-rbt 100 mg/24H SEV

Skin - Human - Skin irritation - 48 h

ethanol: Skin-rabbit

Result: Irritating to skin. -12:0 am

Geraniol: skn-rbt 100 mg/24H SEV

skn-gpg 100 mg/24H SEV

skn-man 16 mg/24H SEV

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

(c) serious eye damage/irritation: If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

ethanol: Eyes-rabbit

Result: Mild eye irritation-12:0 am

(Draize Test)

Geraniol: Eyes-rabbit

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

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

Propan-2-ol: Eyes-rabbit

Result: Eye irritation- 24 h

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.

(d) respiratory or skin sensitisation: The product, if brought into contact with skin can cause skin sensitization.

Citronellol: mouse - May cause sensitization by skin contact.

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.

(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.

(g) eprodivetotoxicity: 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)

(j) aspiration hazard: based on available data, the classification criteria are not met.

Related to contained substances:

Propan-2-ol:

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

INHALATION RISK: A harmful contamination of the air will be reached quite slowly due to evaporation of the substance at 20 °C; However, for spraying or scattering, much more quickly.

Effects of short-term exposure: the substance is irritating to the eyes and the respiratory tract the substance may cause effects on the central nervous system, causing depression. Much greater exposure to the OEL may lead to unconsciousness.

Effects of REPEATED EXPOSURE or long term: the liquid degreasing the skin features.

ACUTE HAZARDS/Symptoms INHALATION Cough. Vertigo. Drowsiness. Headaches. Sore throat. See If Swallowed. CUTE CUTE.

EYE Redness.

INGESTION abdominal pain. Difficulty in breathing. Nausea. State of unconsciousness. Vomiting. (Further see inhalation).

NOT and use of alcoholic beverages enhances the harmful effect.

LD50 (rat) Oral (mg/kg body weight) = 2100

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2100

CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 29

2-benzylideneheptanal:

LD50 (rat) Oral (mg/kg body weight) = 3730

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

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

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.

N O T and consumption of ethanol during pregnancy can have adverse effects on the unborn child. Chronic ethanol ingestion can cause cirrhosis of the liver.

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

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

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

Cinnamyl alcohol:

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

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

2-Methyl-3-(p-isopropylphenyl)propionaldehyde:

Oral-rat LD50 3810 mg / kg

Remarks: Behavior: ataxia Behavior: coma Cute and annexed: other: hair

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

LD50 Dermal - rat -> 5.000 mg / kg

Remarks: Sense organs: sight: lacrimation Behavior: drowsiness (depressive activity

generic) Skin and appendages: other: hair

LD50 (rat) Oral (mg/kg body weight) = 3810

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

3,7-dimethyloctan-3-ol:

LD50 oral, rat-> 5,000 mg/kg oral rat

Ld50-4,500 mg/kg Inhalation-rat

LCLO-male and female-8h-0.885 mg/l

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

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 4500

CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 0,885

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

4-tert-Butylcyclohexyl acetate:

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

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

2-Methylundecanal:

LD50 Oral - rat -> 5.000 mg / kg

DL50 Dermal - rabbit -> 10,000 mg / kg

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

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 10000

$\alpha$ -Hexylcinnamaldehyde:

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

Dodecanal:

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

3-(4-Isobutyl-2-methylphenyl)propanal:

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) = 5

Citrus aurantifolia ext.:

LD50 (rat) Oral (mg/kg body weight) > 50

### 11.2. Information on other hazards

No data available.

## SECTION 12. Ecological information

### 12.1. Toxicity

Related to contained substances:

Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy; Isotridecanol, ethoxylated:

Acute toxicity to fish

LC50 - 96 h : 7.5 mg/l - *Lepomis macrochirus* (Bluegill sunfish)

Harmful to fish.

LC50 - 96 h : 12 mg/l - *Danio rerio* (zebra fish)

Method: OECD Test Guideline 203

Harmful to fish.

Acute toxicity to daphnia and other aquatic invertebrates.

Tridecyl alcohol ethoxylated : LC50 - 48 h : 4.7 mg/l - *Daphnia magna* (Water flea)

Method: OECD Test Guideline 202

Toxic to aquatic invertebrates.

Toxicity to aquatic plants

Tridecyl alcohol ethoxylated : ErC50 - 72 h : 17 mg/l - *Scenedesmus subspicatus*

Harmful to algae.

C(E)L50 (mg/l) = 4,7

Propan-2-ol:

Toxicity to fish LC50-*Pimephales promelas* (fathead minnow)-9, 640.00 mg/l-96 h

Toxicity to daphnia and other aquatic invertebrates

-EC50 *Daphnia magna* (Water flea)-5, 102.00 mg/l- 24 h

EC50 Immobilization-*Daphnia magna* (Water flea)-6.851 mg/l- 24h

C(E)L50 (mg/l) = 5102

2-benzylideneheptanal:

Fish: 96h LC50: 0.91 mg / L (*Oryzias latipes*)

Crustacea: 48h EC50: 0.28 mg / L (*Daphnia magna*)

Algae: 72h EC50: 2.3 mg / L (*Selenastrum capricornutum*)

C(E)L50 (mg/l) = 0,28

Citronellol:

LC50 (96 h) 14,66 mg/l, *Leuciscus idus*

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EC50 (48 h) 17 mg/l, Daphnia magna  
EC50 (72 h) 2,4 mg/l, Scenedesmus subspicatus  
C(E)L50 (mg/l) = 2,4

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

3,7-dimethyloctan-3-ol:  
Toxic to fish Lc50 semi-static test-Danio rerio (zebrafish)-8.9 mg/l-96 h  
method: OECD 203 semi-static test TG  
NOEC-Danio rerio (zebrafish)-5 mg/l-96 h  
method: OECD 203 Toxic TG to daphnia and other aquatic invertebrates – Daphnia magna Ec50 Immobilization (big water Flea)-14.2 mg/l-48 h method: OECD TG 202 Immobilization NOEC-Daphnia magna (water Flea grande)-8.2 mg/l-48 h Method: OECD TG 202 Toxic for algae growth Inhibition Ec50 Desmodesmus subspicatus-(green algae)-13.2 mg/l-72 h method: OECD 201 TG NOEC growth-inhibitor Desmodesmus subspicatus (green algae)-8.5 mg/l-72 h method: OECD 201 TG  
C(E)L50 (mg/l) = 8,9

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

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

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

3-(4-Isobutyl-2-methylphenyl)propanal:  
C(E)L50 (mg/l) = 0,62

Citrus aurantifolia ext.:  
C(E)L50 (mg/l) = 1

The product is dangerous for the environment as it is toxic for 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:



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Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy; Isotridecanol, ethoxylated:  
The substance fulfills the criteria for ultimate aerobic biodegradability and ready biodegradability

2-benzylideneheptanal:  
51% (by BOD), 81% (by TOC)

3,7-dimethyloctan-3-ol:  
aerobic-28 d exposure time Result: 60-70%-Rapidly biodegradable.  
Method: OECD TG 301

Geraniol:  
Aerobic chemical oxygen demand:  
Exposure time 3 days  
Result: 80 - 100% - Easily biodegradable.  
(OECD Test Guideline 301A)

### 12.3. Bioaccumulative potential

No data available.

### 12.4. Mobility in soil

Related to contained substances:  
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

Not included in the scope of application regulations concerning the transport of dangerous goods: by road (ADR); by rail (RID); by air (ICAO / IATA); by sea (IMDG).



**14.2. UN proper shipping name**

None

**14.3. Transport hazard class(es)**

None

**14.4. Packing group**

None

**14.5. Environmental hazards**

None

**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**

No data available.

**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, 4.3. Indication of any immediate medical attention and special treatment needed, 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, 12.2. Persistence and degradability, 12.3. Bioaccumulative potential, 12.5. Results of PBT and vPvB assessment, 12.6. Endocrine disrupting properties, 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Description of the hazard statements exposed to point 3

H302 = Harmful if swallowed.

H318 = Causes serious eye damage.

H225 = Highly flammable liquid and vapour.

H319 = Causes serious eye irritation.

H336 = May cause drowsiness or dizziness.

H317 = May cause an allergic skin reaction.

H411 = Toxic to aquatic life with long lasting effects.

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H315 = Causes skin irritation.  
H335 = May cause respiratory irritation.  
H400 = Very toxic to aquatic life.  
H410 = Very toxic to aquatic life with long lasting effects.  
H332 = Harmful if inhaled.  
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.