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

1.1. Product identifier

Product code : Hygienfresh DeoSpray Fior di Loto
Trades code : A73-026
Product line: HygienFresh

UFI: 2YD0-D03K-000A-JYKN

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

Mangiaodori & fabrics Deospray Environment
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 - 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:
GHS02, GHS07

Hazard Class and Category Code(s):
Flam. Aerosol 1, Skin Sens. 1, Aquatic Chronic 3

Hazard statement Code(s):
H222 - Extremely flammable aerosol.
H229 - Pressurised container: May burst if heated.
H317 - May cause an allergic skin reaction.
H412 - Harmful to aquatic life with long lasting effects.

Aerosol that ignites easily even at low temperatures, fire risk
The product, if brought into contact with skin can cause skin sensitization.
The product is dangerous to the environment as it is harmful to aquatic life with long lasting effects
The repeated inhalation of vapors can cause drowsiness and giddiness.
Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 ° C.

The aerosol containers overheated burst and can be ejected with violence from a distance and can take place a dangerous mechanism for the fire.

2.2. Label elements

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

Pictogram, Signal Word Code(s):
GHS02, GHS07 - Danger

Hazard statement Code(s):
H222 - Extremely flammable aerosol.
H229 - Pressurised container: May burst if heated.
H317 - May cause an allergic skin reaction.
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
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 - Do not spray on an open flame or other ignition source.
P251 - Do not pierce or burn, even after use.
Response
P302+P352 - IN CASE OF CONTACT WITH SKIN: wash thoroughly with soap and water
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
Storage
P403 - Store in a well-ventilated place.
P410+P412 - Protect from sunlight. Do no expose to temperatures exceeding 50 °C/122 °F.
Disposal
P501 - Dispose of contents / container in accordance with local and national regulations.

Contains:
Isobutane, Butane, Propane, ethanol, 4-tert-Butylcyclohexyl acetate, α-Hexylcinnamaldehyde

Content of VOC ready to use condition: 97,85 %

UFI: 2YD0-D03K-000A-JYKN

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
Butane contains less than 0,1 % w/w 1,3-butadiene (EINECS No 203-450-8)

Note K - The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w 1,3-butadiene (Einecs No 203-450-8). If the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P210-P403 should apply. This note applies only to certain complex oil-derived substances in Part 3

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACh
Butane Note: K	>= 35 < 50%	Flam. Gas 1A, H220	601-004-00-0	106-97-8	203-448-7	NR
Isobutane	>= 15 < 25%	Flam. Gas 1A, H220	601-004-00-0	75-28-5	200-857-2	NR
Propane	>= 15 < 25%	Flam. Gas 1A, H220; Press. Gas, H280	601-003-00-5	74-98-6	200-827-9	NR
ethanol	>= 5 < 15%	Flam. Liq. 2, H225	603-002-00-5	64-17-5	200-578-6	NR
Propan-2-ol - FEMA 2929	>= 1 < 5%	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	603-117-00-0	67-63-0	200-661-7	NR
4-tert-Butylcyclohexyl acetate - FEMA 0	>= 0,1 < 1%	Skin Sens. 1B, H317; Aquatic Chronic 2, H411	ND	32210-23-4	250-954-9	NR
α-Hexylcinnamaldehyde	>= 0,1 < 1%	Skin Sens. 1, H317; Aquatic Chronic 2, H411	ND	101-86-0	202-983-3	NR
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	603-212-00-7	1222-05-5	214-946-9	01-2119488227-29-0000
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one - FEMA 0	< 0,1%	Acute Tox. 4, H302; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 10 10	ND	1506-02-1	216-133-4	NR

Fractionated global values

H220	= 87,83	H280	= 19,32	H225	= 10,00	H412	= 0,60
H317	= 0,46	H411	= 0,43	H400	= 0,33	H410	= 0,33
H319	= 3,23	H315	= 0,32	H302	= 0,20	H335	= 0,03
H373	= 0,02	H311	= 0,00	H336	= 3,00		

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 thorougly with running water for at least 10 minutes.

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:
CO_2 or dry powder extinguisher

Extinguishing means to avoid:
Direct jets of water

5.2. Special hazards arising from the substance or mixture

The aerosol containers overheated burst and can be ejected with violence from a distance and can take place a dangerous mechanism for the fire.
Manufactured under pressure in sealed metal container (test pressure 15 bar max). Cool containers with water spray trying to remove them from the fire. The aerosol containers can be overheated and burst violently ejected from a distance (protect the head using a safety helmet).

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
Leave the surrounding area recalling that any overheating could project the cylinder at a considerable distance.
Wear gloves and protective clothing

6.1.2 For emergency responders:
Given the tightness of aerosol, it is unlikely that the spillage may occur.
However if some container is damaged likely to cause a loss, insulate the tank in question by bringing it to open air or covering it with inert material and fuel (eg sand, earth, vermiculite) and having the care to avoid any point of ignition that might pose a serious risk of fire.
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
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:
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

Avoid contact and inhalation of vapors
Use extreme caution when handling the product. Avoid shock or friction.
Do not smoke at work
At work do not eat or drink.
Vapors are heavier than air and may spread close to the ground and form explosive mixtures with air. Prevent formation of flammable or explosive concentrations in the air.
Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 ° C.
Do not pierce or burn, even after the use. Do not spray on flame or incandescent objects. Use in adequately ventilated areas.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
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.
Pressurized container. Store in a ventilated place, in original packaging away from heat and sunlight.
Always store in well ventilated areas.
Never close the container tightly, leave a chance to vent
Keep away from open flames, sparks and heat sources. Avoid direct sunlight exposure.

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:
Butane:
TLV (ACGIH) = 1000 ppm
ACGIH TLV (United States, 3/2012).
TWA: 1000 ppm 8 hour (s).
NIOSH REL (United States, 1/2013).
TWA: 1900 mg/m 10 hour (s).
TWA: 800 ppm 10 hour (s).
OSHA PEL 1989 (United States, 3/1989).
TWA: 1900 mg/m 8 hour (s).
TWA: 800 ppm 8 hour (s).
Butane EH40 WEL TWA 600 ppm 1.450 mg/m3

Isobutane:
ACGIH TLV (United States, 3/2012).
TWA: 1000 ppm 8 hour (s).
NIOSH REL (United States, 1/2013).
TWA: 1900 mg/m 10 hour (s).
TWA: 800 ppm 10 hour (s)

Propane:
TLV: (Aliphatic hydrocarbon gases) 1000 ppm as TWA; (ACGIH 2005).
ACGIH TLV (United States, 3/2012).
TWA: 1000 ppm 8 hour (s).
NIOSH REL (United States, 1/2013).
TWA: 1800 mg/m 10 hour (s).
TWA: 1000 ppm 10 hour (s).
OSHA PEL (United States, 6/2010).
TWA: 1800 mg/m 8 hour (s).
TWA: 1000 ppm 8 hour (s).
OSHA PEL 1989 (United States, 3/1989).
TWA: 1800 mg/m 8 hour (s).
TWA: 1000 ppm 8 hour (s)

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

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).

- 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)

- Substance: Propan-2-ol
DNEL
Systemic effects Long term Workers inhalation = 500 (mg/m3)
Systemic effects Long term Workers dermal = 888 (mg/kg bw/day)
Systemic effects Long term Consumers inhalation = 89 (mg/m3)
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: 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: 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)

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
Wear safety goggles to 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
Avoid direct contact with the skin
Better is to use cotton antistatic clothing

(c) Respiratory protection
Work in a sufficiently ventilated to avoid inhaling the product.

(d) Thermal hazards
No hazard to report

Environmental exposure controls:
Use according to good working practices to avoid pollution into the environment.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method

Physical and chemical properties	Value	Determination method
Appearance	Aerosol	
Colour	colorless liquid under pressure	
Odour	characteristic	
Odour threshold	not determined	
pH	irrelevant	
Melting point/freezing point	< -100 °C (liquid gas)	
Initial boiling point and boiling range	> -42 °C (liquid gas)	
Flash point	< -80 °C (liquid gas)	ASTM D92
Evaporation rate	irrelevant	
Flammability (solid, gas)	flammable	
Upper/lower flammability or explosive limits	9,5% vol / 1,8% vol	
Vapour pressure	3,2 bar	
Vapour density	> 2 (liquid gas)	
Relative density	0,65 kg/l	
Solubility	irrelevant	
Water solubility	not determined	
Partition coefficient: n-octanol/water	not determined	
Auto-ignition temperature	> 400 °C	
Decomposition temperature	not determined	
Viscosity	irrelevant	
Explosive properties	may burst if heated.	
Oxidising properties	non-oxidizing	
Container volume	520 ml / 210ml	
Product volume	400 ml / 150 ml	
Pressure to 20°C	3,2 bar	
Deformation pressure	16,5 bar	
Burst pressure of the container	18 bar	
Flash point of liquid phase	< 21 °C	
Propellent inflammability	< 0 °C	

9.2. Other information

Content of VOC ready to use condition: 97,85 %

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

Avoid heating the product, it could explode.
Avoid contact with combustible materials. The product could catch fire.
heat, open flames, sparks or hot surfaces.
The aerosol product is stable for a period exceeding 36 months and in normal storage conditions can not take place dangerous reactions as the container is almost hermetically sealed.
To avoid that the metal container can deteriorate, keep away from acidic or basic products. Attention to the heat as temperatures exceeding 50 ° C has increased pressure inside the container that gets to deformation of the cylinder until the outbreak.

10.5. Incompatible materials

It can generate inflammable gases to contact with elementary metals, nitrides, strong reducing agents.
It can generate toxic gases to contact with oxidants mineral acids, organic peroxides, organic water peroxides.
It can ignite in contact with oxidants mineral acids, organic nitrides, peroxides and water peroxides, strong oxidants 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 = ∞
ATE(mix) dermal = ∞
ATE(mix) inhal = ∞

(a) acute toxicity: ethanol: LD50 Oral-rat-7.060 mg/kg
Remarks: Lungs, Thorax, or Respiration: Other changes.
LC50 Inhalation-rat-10:0-20000 ppm
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.
α-Hexylcinnamaldehyde: Oral (rat) LD50: 2450 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
(b) skincorrosion/irritation: ethanol: Skin-rabbit
Result: Irritating to skin. -12:0 am
Propan-2-ol: Skin-rabbit
Result: Mild skin irritation
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: ethanol: Eyes-rabbit

Result: Mild eye irritation-12:0 am

(Draize Test)

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

(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: based on available data, the classification criteria are not met.

(g) eproductivetoxicity: 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.

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.

Related to contained substances:

Butane:
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 658

Isobutane:
LD50 (rat) Oral (mg/kg body weight) = 570000
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 570000
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 658000

Propane:
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 410000

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 concetrazioni 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

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).

N O T 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

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

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

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

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

11.2. Information on other hazards

No data available.

SECTION 12. Ecological information

12.1. Toxicity

Related to contained substances:
Butane:
C(E)L50 (mg/l) = 7,71

Isobutane:
C(E)L50 (mg/l) = 7,71

Propane:
C(E)L50 (mg/l) = 7,71

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

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

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

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

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

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

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

No data available.

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

The waste must be disposed of in compliance with the regulations in force delivering empty containers for final disposal and equipped to safely handle pressurized containers containing flammable liquids and gas waste. The empty container heated to temperatures exceeding 70 ° C can burst.
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: 1950

ADR exemption because compliance with the following characteristics:
Combination packagings: per inner packaging 1 L per package 30 Kg
Inner packagings placed in skrink-wrapped or stretch-wrapped trays: per inner packaging 1 L per package 20 Kg

14.2. UN proper shipping name

ADR/RID/IMDG: AEROSOL infiammabili
ADR/RID/IMDG: AEROSOL flammable
ICAO-IATA: AEROSOL flammable

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO-IATA: Class : 2
ADR/RID/IMDG/ICAO-IATA: Label : Limited quantities
ADR: Tunnel restriction code : D
ADR/RID/IMDG/ICAO-IATA: Limited quantities : 1 L
IMDG - EmS : F-D, S-U

14.4. Packing group

ADR/RID/IMDG/ICAO-IATA: --

14.5. Environmental hazards

ADR/RID/ICAO-IATA: Product is not environmentally hazardous
IMDG: Marine polluting agent : Not

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:
P3a - FLAMMABLE AEROSOLS

REGULATION (EU) No 1357/2014 - waste:
HP3 - Flammable

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, 1.2. Relevant identified uses of the substance or mixture and uses advised against, 2.2. Label elements, 2.3. Other hazards, 3.2 Mixtures, 7.2. Conditions for safe storage, including any incompatibilities, 7.3. Specific end use(s), 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, 12.5. Results of PBT and vPvB assessment, 12.6. Endocrine disrupting properties

Description of the hazard statements exposed to point 3
H220 = Extremely flammable gas.
H280 = Contains gas under pressure; may explode if heated.
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.
H400 = Very toxic to aquatic life.
H410 = Very toxic to aquatic life with long lasting effects.
H302 = Harmful if swallowed.

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.