

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

Product code : Hygienfresh DeoMatic Spray Muschio Bianco

Trades code : A75-005

Product line: HygienFresh

UFI: Y171-50NG-E00U-QNRG

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

Deodorant for Automatic Dispenser with super perfuming concentrated essence

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 &amp; 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. 1A, Eye Irrit. 2, 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.

H319 - Causes serious eye irritation.

H412 - Harmful to aquatic life with long lasting effects.

Aerosol that ignites easily even at low temperatures, fire risk

If brought into contact with eyes, the product, causes significant irritations which may last for more than 24 hours.

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.  
H319 - Causes serious eye irritation.  
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 - 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.

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

P337+P313 - If eye irritation persists: Get medical advice/attention.

Storage

P403 - Store in a well-ventilated place.

P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Disposal

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

Contains:

butane, isobutane, propane, alcohol, parfum, benzyl salicylate, hexyl cinnamal, linalool, tetramethyl acetyloctahydronaphthalenes, coumarin, alpha isomethyl ionone, hydroxycitronellal, isoeugenol.

Content of VOC ready to use condition: 94,15 %

UFI: Y171-50NG-E00U-QNRG

## 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 harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w 1,3- butadiene (Einecs No 203-450-8), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P210-P403 shall apply.

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACH
Butane Note: K	>= 35 < 50%	Flam. Gas 1A, H220 ATE inhal = 658,0mg/l/4 h	601-004-00-0	106-97-8	203-448-7	01-2119474 691-32
Isobutane	>= 15 < 25%	Flam. Gas 1A, H220 ATE oral = 570.000,0 mg/kg ATE dermal = 570.000,0 mg/kg ATE inhal = 658.000,0mg/l/4 h	601-004-00-0	75-28-5	200-857-2	01-2119485 395-27
ethanol	>= 15 < 25%	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
Propane	>= 15 < 25%	Flam. Gas 1A, H220; Press. Gas, H280 ATE inhal = 410.000,0mg/l/4 h	601-003-00-5	74-98-6	200-827-9	01-2119486 944-21
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	>= 1 < 5%	Aquatic Acute 1, H400; Aquatic Chronic 1, H410 ATE oral = 3.250,0 mg/kg ATE dermal = 3.250,0 mg/kg	603-212-00-7	1222-05-5	214-946-9	01-2119488 227-29-000 0
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
α-Hexylcinnamaldehyde	>= 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

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACH
Linalool	$\geq 0,1 < 1\%$	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
Coumarin	$\geq 0,1 < 1\%$	Acute Tox. 4, H302; Skin Sens. 1, H317; STOT RE 2, H373 ATE oral = 293,0 mg/kg ATE dermal = 242,0 mg/kg	ND	91-64-5	202-086-7	01-2119943 756-26-000 0
1-(2,3,8,8-Tetramethyl-1,2,3,4,5,6,7,8-octahydronaphthalen-2-yl)ethanone - FEMA 0	$\geq 0,1 < 1\%$	Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Chronic 1, H410 1 1 ATE oral = 5.000,0 mg/kg ATE dermal = 5.000,0 mg/kg	ND	54464-57-2	259-174-3	01-2119489 989-04
3-methyl-4-(2,6,6-trimethylcyclohex-2-enyl)but-3-en-2-one - FEMA 2714	$\geq 0,1 < 1\%$	Skin Irrit. 2, H315; Skin Sens. 1, H317; Eye Irrit. 2, H319; Aquatic Chronic 2, H411 ATE oral = 5.000,0 mg/kg ATE dermal = 5.000,0 mg/kg	ND	127-51-5	204-846-3	NR
7-hydroxycitronellal	$\geq 0,1 < 1\%$	Skin Irrit. 2, H315; Skin Sens. 1, H317; Eye Dam. 1, H318; Eye Irrit. 2, H319 ATE oral = 5.000,0 mg/kg	ND	107-75-5	ND	NR
Reaction mass of 2-methylbutyl salicylate and pentyl salicylate	$\geq 0,1 < 1\%$	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
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

**Fractionated global values**

H400	= 1,92	H410	= 2,16	H317	= 1,29	H319	= 1,05
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H412	= 0,29	H302	= 0,31	H315	= 0,84	H318	= 0,10
H411	= 0,44	H373	= 0,10	H335	= 0,05	H225	= 18,02
H220	= 75,86	H280	= 16,69	H332	= 0,02		

## SECTION 4. First aid measures

### 4.1. Description of first aid measures

#### Inhalation:

Air the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated area. If you feel unwell seek medical advice.

#### Direct contact with skin (of the pure product).:

Take contaminated clothing Immediately off.

Wash immediately with plenty of running water and possibly with soap, the areas of the body that have, or are only suspected to have, come in contact with the product.

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

#### Direct contact with eyes (of the pure product).:

Wash immediately and thoroughly with running water, keeping eyelids open for at least 10 minutes, then protect your eyes with a dry sterile gauze. Seek medical advice immediately

#### 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 eye irritation persists: Get medical advice/attention.

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

## SECTION 5. Firefighting measures

### 5.1. Extinguishing media

#### Advised extinguishing agents:

CO2 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 Suitable: LaTeX, nitrile, PVC  
Eliminate all unguarded flames and possible sources of ignition. No smoking.  
Provision of sufficient ventilation.  
Evacuate the danger area and, in case, consult an expert.

### **6.2. Environmental precautions**

Contain spill  
Inform the competent authorities.  
Discharge the remains in compliance with the regulations

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

#### **6.3.1 For containment:**

Rapidly recover the product, wear a mask and protective clothing  
Recover the product for reuse, if possible, or the removal.

#### **6.3.2 For cleaning up:**

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

#### **6.3.3 Other information:**

None in particular.

### **6.4. Reference to other sections**

Refer to paragraphs 8 and 13 for more information

## **SECTION 7. Handling and storage**

### **7.1. Precautions for safe handling**

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)

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/m<sup>3</sup>

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)

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

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)

- 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: 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/m<sup>3</sup>)  
Systemic effects Long term Workers dermal = 60 (mg/kg bw/day)  
Systemic effects Long term Consumers inhalation = 6,5 (mg/m<sup>3</sup>)  
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:  $\alpha$ -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: Linalool

DNEL

Systemic effects Long term Workers inhalation = 2,8 (mg/m<sup>3</sup>)  
Systemic effects Long term Workers dermal = 2,5 (mg/kg bw/day)



Systemic effects Long term Consumers inhalation = 0,7 (mg/m<sup>3</sup>)  
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-(2,3,8,8-Tetramethyl-1,2,3,4,5,6,7,8-octahydronaphthalen-2-yl)ethanone  
DNEL

Systemic effects Long term Workers inhalation = 1,76 (mg/m<sup>3</sup>)  
Systemic effects Long term Workers dermal = 1,73 (mg/kg bw/day)  
Systemic effects Short term Workers inhalation = 1,76 (mg/m<sup>3</sup>)  
Systemic effects Short term Workers dermal = 1,73 (mg/kg bw/day)

PNEC

Sweet water = 0,0028 (mg/l)  
sediment Sweet water = 3,73 (mg/kg/sediment)  
Sea water = 0,00028 (mg/l)  
sediment Sea water = 0,75 (mg/kg/sediment)  
ground = 0,705 (mg/kg ground)

## 8.2. Exposure controls

Appropriate engineering controls:  
Private households (= general public = consumers):  
No specific checks planned

Public domain (administration, education, entertainment, services, craftsmen):  
No specific monitoring foreseen

Individual protection measures:

(a) Eye / face protection  
Wear safety goggles to 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  
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
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	not determined	
Water solubility	not determined	
Partition coefficient: n-octanol/water	not determined	
Auto-ignition temperature	> 400 °C	
Decomposition temperature	not determined	
Viscosity	not determined	
Explosive properties	may burst if heated.	
Oxidising properties	non-oxidizing	
Container volume	335 ml	
Product volume	250 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	
Propellant inflammability	< 0 °C	

**9.2. Other information**

Content of VOC ready to use condition: 94,15 %

**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 = 140.986,0 mg/kg

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

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

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

1-(2,3,8,8-Tetramethyl-1,2,3,4,5,6,7,8-octahydronaphthalen-2-yl)ethanone: TOXIC DOSE 1-LD > 50 5000 mg/kg (oral rat)

TOXIC DOSE 2-LD > 50 5000 mg/kg (skn-rbt)

(b) skincorrosion/irritation: ethanol: Skin-rabbit

Result: Irritating to skin. -12:0 am

Benzyl salicylate: Skin - rabbit

Result: No skin irritation

(OECD Test Guideline 404)

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

ethanol: Eyes-rabbit

Result: Mild eye irritation-12:0 am

(Draize Test)

Benzyl salicylate: Eyes - In vitro study

Result: Moderate eye irritation

(OECD Test Guideline 437)

Eyes - rabbit

Result: Irritating to eyes.

(Draize Test)

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

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

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

(e) germ cell mutagenicity: based on available data, the classification criteria are not met.

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

(g) reproductive toxicity: 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

exposure 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)

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

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

Propane:

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

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

$\alpha$ -Hexylcinnamaldehyde:

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

Linalool:

LD50 (rat) Oral (mg/kg body weight) = 2790  
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 5610  
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 307

Coumarin:

Acute oral LD50 for rats: 293mg/kg

Acute oral LD50 for mice: 196mg/kg

Irritant data: Not determined

Inhalation data: Not determined

Mutagenicity data: Not determined

LD50 (rat) Oral (mg/kg body weight) = 293

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 242

1-(2,3,8,8-Tetramethyl-1,2,3,4,5,6,7,8-octahydronaphthalen-2-yl)ethanone:

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

3-methyl-4-(2,6,6-trimethylcyclohex-2-enyl)but-3-en-2-one:

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

7-hydroxycitronellal:

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

Reaction mass of 2-methylbutyl salicylate and pentyl salicylate:

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

**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

ethanol:

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

Propane:

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

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

 $\alpha$ -Hexylcinnamaldehyde:

Freshwater Fish Toxicity: acute LC50 &gt;1-10 mg/L

Freshwater Invertebrates Toxicity: acute EC &lt;1 mg/L

Algal Toxicity: acute EC &lt;1 mg/L.

C(E)L50 (mg/l) = 0,99

Linalool:

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

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

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

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

Coumarin:

Toxicity to fish LC50 - *Poecilia reticulata* (guppy) - 56 mg/l - 96 h  
Toxicity to daphnia and other aquatic invertebrates LC50 - *Daphnia magna* (Water flea) - 3.5 mg/l - 48 h  
C(E)L50 (mg/l) = 13,5

1-(2,3,8,8-Tetramethyl-1,2,3,4,5,6,7,8-octahydronaphthalen-2-yl)ethanone:  
Endpoint: LC50 species: *Ipomismacchirus* (fish-salt Bluegrill) = 1.30 mg/l-h Duration: 96-Note:: method: OECD 203 TG  
Endpoint: EC50-species: *Daphnia magna* (Water flea) = 1.38 mg/l-h Duration: 48-comments:: semi-static test method: OECD TG 202  
Endpoint: EC50 *Desmodesmus subspicatus*-species (green algae) = 2.60 mg/l-h Duration: 72-  
Note:: static test method: OECD TG201  
C(E)L50 (mg/l) = 1,3

3-methyl-4-(2,6,6-trimethylcyclohex-2-enyl)but-3-en-2-one:  
Rainbow Trout (average length, 5.8 cm), acclimatized for 12 days, were exposed to a series of 5 test concentrations of 0, 7.8, 10.9, 15.3, 21.4, or 30 mg/L dispersed in Polysorbate 80 (10 mg/L) for 96 hours at 17.1 °C. Control fish were exposed to Polysorbate 80 (10 mg/L). Fish were observed twice daily for mortality and symptoms. pH values and water temperature were monitored after substance addition at 24 hour intervals. Dissolved oxygen was measured at the beginning of the experiment and at 96 hours.  
LC50 = 10.9 mg/L  
*Daphnia magna* 48h - LC50 = 0.597 mg/L  
72 hr EC50=7.47 mg/L based on average specific growth rate;  
C(E)L50 (mg/l) = 0,597

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:

Linalool:

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

## 12.3. Bioaccumulative potential

Related to contained substances:

Linalool:

106

Coumarin:

Bioaccumulation *Leuciscus idus melanotus* - 3 d -46 µg/l

Bioconcentration factor (BCF): < 10

## 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**

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 shrink-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

HP14 - Ecotoxic

**15.2. Chemical safety assessment**

The supplier has made an assessment of chemical safety

**SECTION 16. Other information****16.1. Other information**

Points modified compared to previous release: 1.1. Product identifier, 2.2. Label elements, 2.3. Other hazards, 3.2 Mixtures, 7.2. Conditions for safe storage, including any incompatibilities, 8.1. Control parameters, 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, 12.4. Mobility in soil, 12.6. Endocrine disrupting properties

Description of the hazard statements exposed to point 3

H220 = Extremely flammable gas.

H225 = Highly flammable liquid and vapour.

H280 = Contains gas under pressure; may explode if heated.

H400 = Very toxic to aquatic life.

H410 = Very toxic to aquatic life with long lasting effects.

H317 = May cause an allergic skin reaction.

H319 = Causes serious eye irritation.

H412 = Harmful to aquatic life with long lasting effects.

H411 = Toxic to aquatic life with long lasting effects.

H315 = Causes skin irritation.

H302 = Harmful if swallowed.

H373 = May cause damage to organs through prolonged or repeated exposure .

H318 = Causes serious eye damage.

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.

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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.

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