

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

Product code : Hypnosense Spray Purity
Trades code : AH73-015
Product line: HypnoSense

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 Irrit. 2, Skin Sens. 1, Eye Irrit. 2

Hazard statement Code(s):

H222 - Extremely flammable aerosol.

H229 - Pressurised container: May burst if heated.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

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, if brought into contact with skin, it causes significant inflammation with erythema, scabs, or edema

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

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.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

Supplemental Hazard statement Code(s):

not applicable

Precautionary statements:

General

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.

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

Storage

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:

ethanol, Isobutane, Butane, Propane, 2-(4-tert-butylbenzyl)propionaldehyde,
3-methyl-4-(2,6,6-trimethylcyclohex-2-enyl)but-3-en-2-one, Coumarin, 7-hydroxycitronellal

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

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	Classification	Index	CAS	EINECS	REACH
Butane	> 30 <= 50%	Flam. Gas 1, H220	601-004-00-0	106-97-8	203-448-7	
Isobutane	> 20 <= 30%	Flam. Gas 1, H220	601-004-00-0	75-28-5	200-857-2	
Propane	> 10 <= 20%	Flam. Gas 1, H220; Press. Gas, H280	601-003-00-5	74-98-6	200-827-9	
ethanol	> 5 <= 10%	Flam. Liq. 2, H225	603-002-00-5	64-17-5	200-578-6	
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	
2-(4-tert-butylbenzyl)propionaldehyde	> 1 < 3%	Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317; Repr. 2, H361f; Aquatic Chronic 2, H411		80-54-6	201-289-8	01-2119907 954-30-000 0
3-methyl-4-(2,6,6-trimethylcyclohex-2-enyl)but-3-en-2-one - FEMA 2714	> 0,1 <= 1%	Skin Irrit. 2, H315; Skin Sens. 1, H317; Eye Irrit. 2, H319; Aquatic Chronic 2, H411		127-51-5	204-846-3	
Coumarin	> 0,1 <= 1%	Acute Tox. 4, H302; Skin Sens. 1, H317; STOT RE 2, H373		91-64-5	202-086-7	01-2119943 756-26-000 0
Reaction mass of 2-methylbutyl salicylate and pentyl salicylate	> 0,1 <= 1%	Acute Tox. 4, H302; Aquatic Acute 1, H400; Aquatic Chronic 1, H410			911-280-7	01-2119969 444-27-000 2
7-hydroxycitronellal	> 0,1 <= 1%	Skin Irrit. 2, H315; Skin Sens. 1, H317; Eye Dam. 1, H318; Eye Irrit. 2, H319		107-75-5		

Fractionated global values

H225	= 9,40	H319	= 3,91	H336	= 3,00	H220	= 88,30
H280	= 19,43	H302	= 0,94	H315	= 1,12	H411	= 1,30
H317	= 1,06	H361f	= 0,69	H400	= 0,13	H410	= 0,13
H373	= 0,12	H318	= 0,10	H412	= 0,05	H335	= 0,03

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 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.
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)

- Substance: Propan-2-ol

DNEL

Systemic effects Long term Workers inhalation = 500 (mg/m³)

Systemic effects Long term Workers dermal = 880 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 319 (mg/m³)

Systemic effects Long term Consumers dermal = 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)

ground = 28 (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

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	
Odour	characteristic-white musk	
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	liposoluble	
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	not explosive	
Oxidising properties	non-oxidizing	
Container volume	405 ml	
Product volume	300 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: 97,97 %

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 toxicological effects**

ATE(mix) oral = 117.573,3 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

2-(4-tert-butylbenzyl)propionaldehyde: Oral Rat LD50 mg/kg 3.700

Skin Rabbit > 2.000 mg/kg LD50

(b) skin corrosion/irritation If brought into contact with the skin, the product causes significant inflammation with erythema, scabs, or edema.

ethanol: Skin-rabbit

Result: Irritating to skin. -12:0 am

Propan-2-ol: Skin-rabbit

Result: Mild skin irritation

(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)

Propan-2-ol: Eyes-rabbit

Result: Eye irritation- 24 h

(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.

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

(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 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

2-(4-tert-butylbenzyl)propionaldehyde:

LD50 (rat) Oral (mg/kg body weight) = 3700

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

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

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

Reaction mass of 2-methylbutyl salicylate and pentyl salicylate:

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

7-hydroxycitronellal:

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

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

2-(4-tert-butylbenzyl)propionaldehyde:

Daphnia magna 48 hrs-LC50 = 0.40 mg/l

Green algae 96 hrs-EC50 = 0.827 mg/l

C(E)L50 (mg/l) = 0,4

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

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

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

12.2. Persistence and degradability

Related to contained substances:

2-(4-tert-butylbenzyl)propionaldehyde:

92% "biodegradation after 28 days. 96% after day 31.

Coumarin:

100% (by BOD), 100% (by TOC), 99.6% (by GC)

12.3. Bioaccumulative potential

Related to contained substances:

Coumarin:

6.7

12.4. Mobility in soil

Related to contained substances:

Coumarin:

log Pow: 1.39

Soil adsorption (Koc): No data available

Henry's Law constant(PaM³/mol): 0.7

12.5. Results of PBT and vPvB assessment

The substance / mixture NOT contains substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

12.6. 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**

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. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

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**

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.

H302 = Harmful if swallowed.

H315 = Causes skin irritation.

H317 = May cause an allergic skin reaction.

H361f = Suspected of damaging fertility.

H411 = Toxic to aquatic life with long lasting effects.

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

H400 = Very toxic to aquatic life.

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

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.

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.