

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

Product code : Hygienefresh Tarmacid Fresh Laundry - P.M.C 20396
Trades code : A72-005
Product line: Hygienefresh

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

Sectors of use:

Private households (= general public = consumers)[SU21], Public domain (administration, education, entertainment, services, craftsmen)[SU22]

Uses advised against

Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

Tintolav s.r.l. - Via M. D' Antona 7 - 10028 Trofarello (TO) Tel. 011/649.68.27 Fax 011/649.67.42

Email: info@tintolav.com - Sito internet: www.tintolav.com

Email tecnico competente: a.conedera@tintolav.com

National contact: Malta: Emergency Ambulance 112
Accident & Emergency Department 2545 4030

1.4. Emergency telephone number

The UK National Poisons Emergency number +44 (0)870 600 6266
London: Emergency 24 hour telephone +44 (0) 207188 0100

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

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

Pictograms:

GHS02, GHS07, GHS09

Hazard Class and Category Code(s):

Flam. Aerosol 1, Skin Irrit. 2, Skin Sens. 1, STOT SE 3, Aquatic Chronic 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.

H336 - May cause drowsiness or dizziness.

H411 - Toxic to aquatic life with long lasting effects.

Aerosol that ignites easily even at low temperatures, fire risk

If brought into contact with the skin, the product causes significant inflammation with erythema, scabs, or edema.

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

Warning: Vapours inhalation may cause sleepiness and giddiness

The product is dangerous to the environment as it is toxic 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, GHS09 - Danger



Hazard statement Code(s):
H222 - Extremely flammable aerosol.
H229 - Pressurised container: May burst if heated.
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H336 - May cause drowsiness or dizziness.
H411 - Toxic to aquatic life with long lasting effects.

Supplemental Hazard statement Code(s):
EUH208 - Contains <name of sensitising substance>. May produce an allergic reaction.

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.
- P251 - Do not pierce or burn, even after use.
- P273 - Avoid release to the environment.

Response

- P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
- P391 - Collect spillage.

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:

permethrin (ISO), Isoalkanes C6 hydrocarbons <5% hexane, 2,2,2-trichloro-1-phenylethylacetate, 2-(4-tert-butylbenzyl)propionaldehyde, α-Hexylcinnamaldehyde, 2,6-dimethyloct-7-en-2-ol, 1-(2,3,8,8-Tetramethyl-1,2,3,4,5,6,7,8-octahydronaphthalen-2-yl)ethanone, Hexyl salicylate, 3-methyl-4-(2,6,6-trimethylcyclohex-2-enyl)but-3-en-2-one, nerol, 7-hydroxycitronellal, Eugenol, Geraniol, Citronellol, 1-(1,2,3,4,6,7,8,8a-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one, 1-(1,2,3,5,6,7,8,8a-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one, 10-Undecenal, Ethoxymethoxy cyclododecane, Linalool, 2,4-dimethylcyclohex-3-ene-1-carbaldehyde, dipentene, 1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one, p-cresol, Isobutane, Butane, Propane, Hydrocarbons, C9-C11, isoalkanes, cyclics, <2% aromatics
REGULATION (EU) No 528/2012, biocides contained: permethrin (ISO) (Insecticides, acaricides and products to control other arthropods); 2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO) (Insecticides, acaricides and products to control other arthropods); Tetramethrin (Insecticides, acaricides and products to control other arthropods)

Content of VOC ready to use condition: 95,75 %

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

Substance	Concentration	Classification	Index	CAS	EINECS	REACH
Butane	> 30 <= 50%	Flam. Gas 1, H220	601-004-00-0	106-97-8	203-448-7	
Hydrocarbons, C9-C11, isoalkanes, cyclics, <2% aromatics	> 20 <= 30%	Flam. Liq. 3, H226; Asp. Tox. 1, H304; STOT SE 3, H336; Aquatic Chronic 2, H411		1174522-20-3	920-134-1	01-2119480 153-44
Isoalkanes C6 hydrocarbons <5% hexane	> 10 <= 20%	Flam. Liq. 2, H225; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336; Aquatic Chronic 2, H411			931-254-9	01-2119484 651-34-000 2
Isobutane	> 10 <= 20%	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	
permethrin (ISO)	> 1 <= 5%	Acute Tox. 4, H302; Skin Sens. 1, H317; Acute Tox. 4, H332; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 1000 1000	613-058-00-2	52645-53-1	258-067-9	
2-(4-tert-butylbenzyl)propionaldehyde	>= 0,1 <= 1%	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
α-Hexylcinnamaldehyde	> 0,1 <= 1%	Skin Sens. 1, H317; Aquatic Chronic 2, H411		101-86-0	202-983-3	
2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO)	> 0,1 <= 1%	Aquatic Acute 1, H400; Aquatic Chronic 1, H410 10		51-03-6	200-076-7	
Tetramethrin	<= 0,1%	Aquatic Acute 1, H400; Aquatic Chronic 1, H410 100		7696-12-0	231-711-6	

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.

Direct contact with eyes (of the pure product):

Wash immediately and thoroughly 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 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:**

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:

Wear a mask, gloves and protective clothing. Suitable: LaTeX, nitrile, PVC

Delete all naked flames and potential sources of ignition. Do not smoke.

Provide adequate ventilation.

Evacuate danger area and, where appropriate, 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:

To clean the floor and all objects contaminated by this material use absorbent powder for organic substances.
After wiping up, wash with water the area and materials involved.

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)

Private households (= general public = consumers):

Handle with care.

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In conformity to Regulation (EU) 2015/830

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

Hydrocarbons, C9-C11, isoalkanes, cyclics, <2% aromatics:

TWA [mg/m³] -- 250

STEL [mg/m³] -- 400

Isoalkanes C6 hydrocarbons <5% hexane:

AGW * (DE)-short term 1200 mg/m-long term 2400 mg/m-Calculated according to RCP method (TRGS 900)-* Peak limit: max. 2 x AGW-exceeding 4 times per shift for 15 min. after 1hour interval

DNEL values-Worker Industry Professional Consumer Exposure route Exposure frequency short term (acute) 1301 mg/kg bw/day oral long term (repeated) short term (acute) 13964 mg/kg bw/day 1377 mg/kg bw/day dermal long term (repeated) short term (acute) 5306 mg/m 1131 mg/m inhalation long term (repeated)

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)

2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO):

AEL - short term 1 mg / kg bw

AEL - medium term 0.2 mg / kg bw

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In conformity to Regulation (EU) 2015/830

AEL - long term 0.2 mg / kg bw

- Substance: Hydrocarbons, C9-C11, isoalkanes, cyclics, <2% aromatics

DNEL

Systemic effects Long term Workers inhalation = 871 (mg/m³)

Systemic effects Long term Workers dermal = 77 (mg/kg bw/day)

- Substance: 2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO)

PNEC

sediment Sea water = 0,0004 (mg/kg/sediment)

ground = 0,098 (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 mask

(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:

Related to contained substances:

permethrin (ISO):

DO NOT allow this chemical to contaminate the environment. DO NOT remove in drain.

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	
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	fat-soluble	
Water solubility	not determined	
Partition coefficient: n-octanol/water	not determined	
Auto-ignition temperature	> 400 °c	
Decomposition temperature	not determined	
Viscosity	irrelevant	
Explosive properties	not explosive	
Oxidising properties	non-oxidizing	
Container volume	520 ml	ISO 90-3:2000
Product volume	400 ml	ISO 90-3:2000
Pressure to 20°C	3.2 bar	Manometro
Deformation pressure	16.5 bar	manometro
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: 95,75 %

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 = 25.533,3 mg/kg

ATE(mix) dermal = ∞

ATE(mix) inhal = ∞

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

Skin Rabbit > 2.000 mg/kg LD50

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

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

Isoalkanes C6 hydrocarbons <5% hexane: Causes skin irritation.

(c) serious eye damage/irritation: Isoalkanes C6 hydrocarbons <5% hexane: Not irritating to the eye

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

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

(h) specific target organ toxicity (STOT) single exposure: Warning: Vapours inhalation may cause sleepiness and giddiness

(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

Isoalkanes C6 hydrocarbons <5% hexane:

Acute toxicity (oral) Lc50 rat (Sprague-Dawley) evil/female-16750 mg/kg bw-OECD Guideline 401 Aspiration may cause pulmonary oedema and pneumonitis.

Acute toxicity (dermal)-Rabbit-3350 LD50 mg/kg bw-OECD Guideline 402 Acute toxicity (inhalation)

LC50 rat (Long evans) evil/female-259354 mg/m-OECD Guideline 403-May cause CNS depression.

LD50 (rat) Oral (mg/kg body weight) = 16750

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 3350

CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 259354

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

permethrin (ISO):

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

INHALATION RISK: No indication can be given about the rate in which a harmful concentration in the air is reached on evaporation of this substance at 20 ° C.

EFFECTS OF SHORT-TERM EXPOSURE: The substance is irritating to the eyes, the skin and the respiratory tract

ACUTE RISKS / SYMPTOMS

INHALATION Cough.

CUTE Redness. Burning sensation.

EYES Redness. Ache.

INGESTION Burning sensation. Diarrhea. He retched.

LD50 Oral - Rat - 383 mg / kg

LC50 Inhalation - Rat - 485 mg / m3

LD50 Dermal - Rabbit -> 2,000 mg / kg

LD50 (rat) Oral (mg/kg body weight) = 383

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

CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 485

2-(4-tert-butylbenzyl)propionaldehyde:

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

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

 α -Hexylcinnamaldehyde:

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

2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO):

LD50 Oral - Rat - male and female - 5,630 mg/kg(2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether) (OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female - 4 h - > 5.9 mg/l(2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether)

LD50 Dermal - Rabbit - male and female - > 2,000 mg/kg(2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether) (OECD Test Guideline 402)

LD50 (rat) Oral (mg/kg body weight) = 5630

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

CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 5,9

Tetramethrin:

LD50 Oral - rat - 4.640 mg / kg
LC50 Inhalation - rat - 3 h -> 2,500 mg / m³
LD50 Dermal - rat -> 2,500 mg / kg
Remarks: Behavior: tremor Behavior: excitement Kidney, ureter, bladder: greater volume of urine
LD50 (rat) Oral (mg/kg body weight) = 4640
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2500
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 2500

SECTION 12. Ecological information

12.1. Toxicity

Related to contained substances:

Butane:

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

Hydrocarbons, C9-C11, isoalkanes, cyclics, <2% aromatics:

LL50 3.6 mg/l rainbow trout (oncorhynchus mykiss) 96 h

EL50 22 mg/l daphnia magna 48 h

EL50 1,000 mg/l algae 72 h

C(E)L50 (mg/l) = 3,6

Isoalkanes C6 hydrocarbons <5% hexane:

Acute toxicity (fish)-96 h LL50-Oncorhynchus mykiss (freshwater)-Petrotox computer model (v 3.04)-18.27 mg/L

Acute toxicity (daphnia)-EL50 48-h Daphnia magna (freshwater)-Petrotox computer model (v 3.04)-31.9 mg/L

Acute toxicity (algae)-72 h-EL50 Pseudokirchnerella subcapitata (freshwater)-Petrotox computer model (v 3.04)-3,034 mg/L

C(E)L50 (mg/l) = 3,034

Isobutane:

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

Propane:

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

permethrin (ISO):

The substance is very toxic to aquatic organisms. During normal use this substance is released into the environment. However, great care must be taken to prevent any additional release, for example for inappropriate disposal.

Toxicity to fish mortality LOEC - Salmo salar (Atlantic salmon) - 0.009 mg / l - 96.0 h

CL50 - Pimephales promelas (American chub) - 0.016 mg / l - 96.0 h

Toxicity to daphnia

and for other invertebrates

water

EC50 - Daphnia magna (Large water flea) - 0.32 µgr / l - 48 h

Toxicity to algae Growth inhibitor CE50 - Skeletonema costatum - 0.068 mg / l - 96 h

C(E)L50 (mg/l) = 0,00032 1000

1000

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

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

2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO):Toxicity to fish flow-through test LC50 - *Oncorhynchus mykiss* (rainbow trout) - ca. 6.12 mg/l - 96

h(2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether)

Toxicity to daphnia and

other aquatic

invertebrates

flow-through test EC50 - *Daphnia magna* (Water flea) - ca. 0.05 mg/l - 48 h(2-

(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether)

C(E)L50 (mg/l) = 0,05 10

Tetramethrin:Fish toxicity CL50 continuous flow test - *Oncorhynchus mykiss* (rainbow trout) - 6.4 μ g / l -96.0 hToxicity to daphnia and other aquatic invertebrates Continuous flow test CE50 - *Daphnia magna* (Water flea) - 49 μ g / l -48hEC50 / 72h 1.36 mg / l (*scenedesmus subspicatus*)LC50 / 96h 0.033 mg / l (*brachydanio rerio*)EC50 / 48h 0.47 mg / l (*daphnia magna*)

C(E)L50 (mg/l) = 0,0064 100

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

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

12.2. Persistence and degradability

Related to contained substances:

permethrin (ISO):

Bioaccumulation *Oncorhynchus mykiss* (Rainbow trout) - 24 h- 0.73 μ g / l

Bioconcentration factor (BCF): 3.620

2-(4-tert-butylbenzyl)propionaldehyde:

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

2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO):

aerobic - Exposure time 28 d(2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether)

Result: 24 - 48 % - Not readily biodegradable. (OECD Test Guideline 301B)

Tetramethrin:

Biotic / Aerobic - Exposure time 28 d

Result: 2% - Not immediately biodegradable.

12.3. Bioaccumulative potential

Related to contained substances:

2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO):

Lepomis macrochirus - 28 d

(2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether)

Bioconcentration factor (BCF): 91 - 380**12.4. Mobility in soil**

No data available.

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 environmentally hazardous

IMDG: Marine polluting agent : Yes

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

E1 - ENVIRONMENTAL HAZARDS

REGULATION (EU) No 1357/2014 - waste:

HP3 - Flammable

HP4 - Irritant — skin irritation and eye damage

HP5 - Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

HP14 - Ecotoxic

15.2. Chemical safety assessment

The supplier has made an assessment of chemical safety

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

Description of the hazard statements exposed to point 3

H220 = Extremely flammable gas.

H226 = Flammable liquid and vapour.

H304 = May be fatal if swallowed and enters airways.

H336 = May cause drowsiness or dizziness.

H411 = Toxic to aquatic life with long lasting effects.

H225 = Highly flammable liquid and vapour.

H315 = Causes skin irritation.

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

H302 = Harmful if swallowed.

H317 = May cause an allergic skin reaction.

H332 = Harmful if inhaled.

H400 = Very toxic to aquatic life.

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

H361f = Suspected of damaging fertility.

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.
