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

1.1. Product identifier

Product code : BEAMZ FSMA-V Smoke Fluid Add. VANILLA
Trades code : 160.652
Product line: SMOKEFLUID
UFI: FPJ1-X0M4-F005-QJ9A

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

Liquid for producing artificial smoke
Sectors of use:
Other (Professional and/or consumer uses)[SU0]
Product category:
Perfumes, Fragrances
Process categories:
Professional Use
Uses advised against
Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

Tronios BV
Bedrijvenpark Twente Noord 18
7602 KR Almelo
The Netherlands
Telefoonnummer: +31 (0)85 105 3155

e-mail: info@tronios.com
National contact: email of the competent person responsible for the Safety Data Sheet: info@tronios.com

1.4. Emergency telephone number

In the case of emergency Members of Public in England, Scotland and Wales can contact NHS 111/NHS 24 by dialling 111
In Northern Ireland contact your local GP
In Republic of Ireland contact:
Consumer poison service: tel. 01 809 2166 (8am-10pm)
Healthcare Professionals: Tel. 01 809 2566 (24h/7days)

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

CAS miscela/blend EINECS miscela/blend REACH miscela/blend
2.1.1 Classification according to Regulation (EC) No 1272/2008:
Pictograms:
GHS07, GHS09
Hazard Class and Category Code(s):
Skin Sens. 1B, Aquatic Chronic 2
Hazard statement Code(s):
H317 - May cause an allergic skin reaction.
H411 - Toxic to aquatic life with long lasting effects.
The product, if brought into contact with skin can cause skin sensitization.
The product is dangerous to the environment as it is toxic to aquatic life with long lasting effects

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:
Pictogram, Signal Word Code(s):
GHS07, GHS09 - Warning
Hazard statement Code(s):
H317 - May cause an allergic skin reaction.

H411 - Toxic to aquatic life with long lasting effects.
Supplemental Hazard statement Code(s):
not applicable
Precautionary statements:
Prevention
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
Contains:
Oxydipropanol, (2E)-2-(phenylmethylidene)octanal (Hexyl Cinnamal), (R)-p-mentha-1,8-diene (Limonene), Linalool, Linalyl acetate, Coumarin
UFI: FPJ1-X0M4-F005-QJ9A

2.3. Other hazards

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII
The mixture is not corrosive and no Serious Health Effects or Acute Health Toxicity hazards are expected.
The most important adverse physical-chemical human health and environmental effects are listed in sections 9 to 12 of this safety data sheet.

SECTION 3. Composition/information on ingredients

3.1 Substances

Irrilevant

3.2 Mixtures

Refer to paragraph 16 for full text of hazard statements
Note C - Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.
Allergens contained:
(R)-p-menta-1,8-diene (Limonene) = 1,150
Alpha isomethyl ionone = 0,045
Amyl cinnamal = 0,001
Anisyl alcohol (Anise alcohol) = 0,001
Benzyl benzoate = 0,002
Citral = 0,015
Coumarin = 0,510
Linalool = 0,952

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACh
Oxydipropanol	>= 5 < 10%	ATE oral = 14.850,0 mg/kg ATE dermal = 5.010,0 mg/kg ATE inhal = 2,3mg/l/4 h	ND	25265-71-8	246-770-3	01-2119456811-38-0000
galaxolide (HHCB)	>= 1 < 5%	Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Chronic toxicity M-factor = 1 ATE oral = 4.640,0 mg/kg ATE dermal = 10.000,0 mg/kg	603-212-00-7	1222-05-5	214-946-9	01-2119488227-29-0000
2-ethyl-3-hydroxy-4-pyrone - FEMA 3487	>= 1 < 5%	Acute Tox. 4, H302 ATE oral = 1.220,0	ND	4940-11-8	225-582-5	01-2120758795-36-00

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACh
		mg/kg ATE dermal = 5.000,0 mg/kg				00
(2E)-2-(phenylmethylidene)octanal (Hexyl Cinnamal) - FEMA 2569	>= 1 < 5%	Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 2, H411 Chronic toxicity M-factor = 1 ATE oral = 3.100,0 mg/kg ATE dermal = 3.000,0 mg/kg ATE inhal = 2,1mg/l/4 h	ND	165184-98-5	639-566-4	01-2119533092-50-0000
3-ethoxy-4-hydroxybenzaldehyde - FEMA 2464	>= 1 < 5%	Eye Irrit. 2, H319 ATE oral = 3.160,0 mg/kg ATE dermal = 2.000,0 mg/kg	ND	121-32-4	204-464-7	01-2119958961-24-0000
(R)-p-mentha-1,8-diene (Limonene) - FEMA 2633 Note: C	>= 1 < 5%	Flam. Liq. 3, H226; Asp. Tox. 1, H304; Skin Irrit. 2, H315; Skin Sens. 1B, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Acute toxicity M-factor = 1 Chronic toxicity M-factor = 1 ATE oral = 2.000,0 mg/kg ATE dermal = 5.000,0 mg/kg	601-096-00-2	5989-27-5	227-813-5	01-2119529223-47-0000
Linalool - FEMA 2635	>= 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 = 3,2mg/l/4 h	603-235-00-2	78-70-6	201-134-4	01-2119474016-42-0000
Linalyl acetate - FEMA 2636	>= 0,1 < 1%	Skin Irrit. 2, H315; Skin Sens. 1B, H317; Eye Irrit. 2, H319 ATE oral = 9.000,0 mg/kg ATE dermal = 5.000,0 mg/kg	ND	115-95-7	204-116-4	01-2119454789-19-0000
Coumarin	>= 0,1 < 1%	Acute Tox. 4, H302; Skin Sens. 1, H317; Aquatic Chronic 3, H412 Chronic toxicity M-factor = 1 ATE oral = 290,0 mg/kg ATE dermal = 293,0 mg/kg	ND	91-64-5	202-086-7	01-2119943756-26-0000

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACh

Fractionated global values

H410	= 5,64	H400	= 7,62	H302	= 3,51	H317	= 5,54
H411	= 1,98	H319	= 3,88	H226	= 1,15	H315	= 3,05
H304	= 1,15	H412	= 0,51	H225	= 0,00	H336	= 0,00

SECTION 4. First aid measures

4.1. Description of first aid measures

Inhalation:
Air the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated area. If you feel unwell seek medical advice.
Direct contact with skin (of the pure product).:
Wash thoroughly with soap and running water.
Direct contact with eyes (of the pure product).:
Do not use eye drops or ointments of any kind before the examination or advice from an oculist.
Ingestion:
Not hazardous. It's possible to give activated charcoal in water or liquid paraffin medicine

4.2. Most important symptoms and effects, both acute and delayed

No data available.

4.3. Indication of any immediate medical attention and special treatment needed

If skin irritation or rash occurs: Get medical advice/attention.

SECTION 5. Firefighting measures

5.1. Extinguishing media

Advised extinguishing agents:
Water spray, CO2, foam, dry chemical, depending on the materials involved in the fire.
Extinguishing means to avoid:
Water jets. Use water jets only to cool the surfaces of the containers exposed to fire.

5.2. Special hazards arising from the substance or mixture

No data available.

5.3. Advice for firefighters

Use protection for the breathing apparatus
Safety helmet and full protective suit.
The spray water can be used to protect the people involved in the extinction
You may also use selfrespirator, especially when working in confined and poorly ventilated area and if you use halogenated extinguishers (Halon 1211 fluobrene, Solkan 123, NAF, etc...)
Keep containers cool with water spray

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:
Leave the area surrounding the spill or release. Do not smoke
Wear gloves and protective clothing
6.1.2 For emergency responders:
Eliminate all unguarded flames and possible sources of ignition. No smoking.
Provision of sufficient ventilation.
Evacuate the danger area and, in case, consult an expert.

6.2. Environmental precautions

Contain spill with earth or sand.
If the product has entered a watercourse in sewers or has contaminated soil or vegetation, notify it to the authorities.
Discharge the remains in compliance with the regulations

6.3. Methods and material for containment and cleaning up

6.3.1 For containment:
Rapidly recover the product, wear a mask and protective clothing
Recover the product for reuse, if possible, or for removal. Possibly absorb it with inert material.
Prevent it from entering the sewer system.
6.3.2 For cleaning up:
After wiping up, wash with water the area and materials involved
6.3.3 Other information:
None in particular.

6.4. Reference to other sections

Refer to paragraphs 8 and 13 for more information

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Avoid handling the liquid with bare hands. In case of accidental contact with the product, wash your hands thoroughly with soapy water.

7.2. Conditions for safe storage, including any incompatibilities

Keep in original container closed tightly. Do not store in open or unlabeled containers.
Keep containers upright and safe by avoiding the possibility of falls or collisions.
Store in a cool place, away from sources of heat and `direct exposure of sunlight.
Keep in the original container tightly closed. Do not store in open or unlabeled containers.
Keep the containers in an upright position and be careful to avoid falls or collisions.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid direct exposure to sunlight.
Keep containers away from any incompatible materials, checking section 10.

7.3. Specific end use(s)

Other (Professional and/or consumer uses):
Handle with care.
Store in ventilated area and away from heat sources.
Keep the container tightly closed.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Related to contained substances:
Oxydipropanol:
TLV-TWA: 5.00 ppm
TLV-STEL: 150.00 ppm

(R)-p-mentha-1,8-diene (Limonene):
TLV-TWA: 30 ppm

- Substance: Oxydipropanol
DNEL
Systemic effects Long term Workers inhalation = 238 (mg/m3)
Systemic effects Long term Workers dermal = 84 (mg/kg bw/day)
Systemic effects Long term Consumers inhalation = 70 (mg/m3)
Systemic effects Long term Consumers dermal = 51 (mg/kg bw/day)
Systemic effects Long term Consumers oral = 24 (mg/kg bw/day)
PNEC
Sweet water = 0,1 (mg/l)
sediment Sweet water = 0,238 (mg/kg/sediment)
Sea water = 0,01 (mg/l)
sediment Sea water = 0,024 (mg/kg/sediment)
STP = 1000 (mg/l)
ground = 0,025 (mg/kg ground)
- Substance: galaxolide (HHCB)
DNEL
Systemic effects Long term Workers inhalation = 22 (mg/m3)
Systemic effects Long term Workers dermal = 60 (mg/kg bw/day)
Systemic effects Long term Consumers inhalation = 6,5 (mg/m3)
Systemic effects Long term Consumers dermal = 36 (mg/kg bw/day)
Systemic effects Long term Consumers oral = 3,8 (mg/kg bw/day)
PNEC
Sweet water = 0,0044 (mg/l)
sediment Sweet water = 2 (mg/kg/sediment)
Sea water = 0,00044 (mg/l)
sediment Sea water = 0,394 (mg/kg/sediment)
intermittent emissions = 30 (mg/l)
STP = 1 (mg/l)
ground = 0,31 (mg/kg ground)
- Substance: 2-ethyl-3-hydroxy-4-pyrone
DNEL
Systemic effects Long term Workers inhalation = 58,7 (mg/m3)
Systemic effects Long term Workers dermal = 16,7 (mg/kg bw/day)
Systemic effects Long term Consumers inhalation = 17,4 (mg/m3)
Systemic effects Long term Consumers dermal = 10 (mg/kg bw/day)
Systemic effects Long term Consumers oral = 10 (mg/kg bw/day)
PNEC
Sweet water = 0,0072 (mg/l)
sediment Sweet water = 0,27 (mg/kg/sediment)
Sea water = 0,00072 (mg/l)
sediment Sea water = 0,027 (mg/kg/sediment)
STP = 1,55 (mg/l)
ground = 0,049 (mg/kg ground)
- Substance: (2E)-2-(phenylmethylidene)octanal (Hexyl Cinnamal)
DNEL
Systemic effects Long term Workers inhalation = 0,078 (mg/m3)
Systemic effects Long term Workers dermal = 18,2 (mg/kg bw/day)
Systemic effects Long term Consumers inhalation = 0,019 (mg/m3)
Systemic effects Long term Consumers dermal = 9,11 (mg/kg bw/day)
Systemic effects Long term Consumers oral = 0,056 (mg/kg bw/day)
Local effects Long term Workers inhalation = 6,28 (mg/m3)
Local effects Long term Workers dermal = 0,525 (mg/kg bw/day)
Local effects Long term Consumers dermal = 0,0787 (mg/kg bw/day)
Local effects Short term Workers dermal = 0,525 (mg/kg bw/day)
Local effects Short term Consumers inhalation = 4,71 (mg/m3)

Local effects Short term Consumers dermal = 0,0787 (mg/kg bw/day)
PNEC
Sweet water = 0,001 (mg/l)
sediment Sweet water = 3,2 (mg/kg/sediment)
sediment Sea water = 0,064 (mg/kg/sediment)
intermittent emissions = 0,002 (mg/l)
STP = 10 (mg/l)
ground = 0,398 (mg/kg ground)
- Substance: 3-ethoxy-4-hydroxybenzaldehyde
DNEL
Systemic effects Long term Workers inhalation = 49 (mg/m3)
Systemic effects Long term Workers dermal = 7 (mg/kg bw/day)
Systemic effects Long term Consumers inhalation = 8,75 (mg/m3)
Systemic effects Long term Consumers dermal = 2,5 (mg/kg bw/day)
Systemic effects Long term Consumers oral = 2,5 (mg/kg bw/day)
Systemic effects Short term Workers inhalation = 98 (mg/m3)
Systemic effects Short term Consumers inhalation = 17,5 (mg/m3)
PNEC
Sweet water = 0,118 (mg/l)
sediment Sweet water = 15 (mg/kg/sediment)
Sea water = 0,012 (mg/l)
sediment Sea water = 1,5 (mg/kg/sediment)
STP = 10 (mg/l)
ground = 2,923 (mg/kg ground)
- Substance: (R)-p-mentha-1,8-diene (Limonene)
DNEL
Systemic effects Long term Workers inhalation = 66,7 (mg/m3)
Systemic effects Long term Workers dermal = 9,5 (mg/kg bw/day)
Systemic effects Long term Consumers inhalation = 16,6 (mg/m3)
Systemic effects Long term Consumers dermal = 4,8 (mg/kg bw/day)
Systemic effects Long term Consumers oral = 4,8 (mg/kg bw/day)
PNEC
Sweet water = 0,014 (mg/l)
sediment Sweet water = 3,85 (mg/kg/sediment)
Sea water = 0,0014 (mg/l)
sediment Sea water = 0,385 (mg/kg/sediment)
STP = 1,8 (mg/l)
ground = 0,763 (mg/kg ground)
- Substance: Linalool
DNEL
Systemic effects Long term Workers inhalation = 2,8 (mg/m3)
Systemic effects Long term Workers dermal = 2,5 (mg/kg bw/day)
Systemic effects Long term Consumers inhalation = 0,7 (mg/m3)
Systemic effects Long term Consumers dermal = 1,25 (mg/kg bw/day)
Systemic effects Long term Consumers oral = 0,2 (mg/kg bw/day)
Systemic effects Short term Workers inhalation = 16,5 (mg/m3)
Systemic effects Short term Workers dermal = 5 (mg/kg bw/day)
Systemic effects Short term Consumers inhalation = 4,1 (mg/m3)
Systemic effects Short term Consumers dermal = 2,5 (mg/kg bw/day)
Systemic effects Short term Consumers oral = 1,2 (mg/kg bw/day)
Local effects Long term Workers dermal = 15 (mg/kg bw/day)
Local effects Long term Consumers dermal = 15 (mg/kg bw/day)
Local effects Short term Workers dermal = 15 (mg/kg bw/day)
Local effects Short term Consumers dermal = 15 (mg/kg bw/day)
PNEC
Sweet water = 0,2 (mg/l)
sediment Sweet water = 2,22 (mg/kg/sediment)
Sea water = 0,02 (mg/l)
sediment Sea water = 0,222 (mg/kg/sediment)

intermittent emissions = 2 (mg/l)
STP = 10 (mg/l)
ground = 0,327 (mg/kg ground)
- Substance: Linalyl acetate
DNEL
Systemic effects Long term Workers inhalation = 2,75 (mg/m3)
Systemic effects Long term Workers dermal = 2,5 (mg/kg bw/day)
Systemic effects Long term Consumers inhalation = 0,68 (mg/m3)
Systemic effects Long term Consumers dermal = 1,25 (mg/kg bw/day)
Systemic effects Long term Consumers oral = 0,2 (mg/kg bw/day)
Local effects Long term Workers dermal = 8 (mg/kg bw/day)
Local effects Long term Consumers dermal = 8 (mg/kg bw/day)
Local effects Short term Workers dermal = 8 (mg/kg bw/day)
Local effects Short term Consumers dermal = 8 (mg/kg bw/day)
PNEC
Sweet water = 0,011 (mg/l)
sediment Sweet water = 0,609 (mg/kg/sediment)
Sea water = 0,001 (mg/l)
sediment Sea water = 0,061 (mg/kg/sediment)
intermittent emissions = 0,11 (mg/l)
STP = 10 (mg/l)
ground = 0,115 (mg/kg ground)
- Substance: Coumarin
DNEL
Systemic effects Long term Workers inhalation = 6,78 (mg/m3)
Systemic effects Long term Workers dermal = 0,79 (mg/kg bw/day)
Systemic effects Long term Consumers inhalation = 1,69 (mg/m3)
Systemic effects Long term Consumers dermal = 0,39 (mg/kg bw/day)
Systemic effects Long term Consumers oral = 0,39 (mg/kg bw/day)
PNEC
Sweet water = 0,019 (mg/l)
sediment Sweet water = 0,15 (mg/kg/sediment)
Sea water = 0,0019 (mg/l)
sediment Sea water = 0,015 (mg/kg/sediment)
intermittent emissions = 0,056 (mg/l)
STP = 6,4 (mg/l)
ground = 0,018 (mg/kg ground)

8.2. Exposure controls

Appropriate engineering controls:
Other (Professional and/or consumer uses):
Not expected
Individual protection measures:
(a) Eye / face protection
When handling the pure product use safety glasses (spectacles cage) (EN 166).
(b) Skin protection
(i) Hand protection
Hand protection: use protective gloves:
Polychloroprene / Layer thickness 0,5 - 0,7 mm / Break through time> 480 min (level 6) / EN 374-3
Butyl-rubber / Layer thickness 0.6 - 0.8 mm / Break through time> 480 min (level 6) / EN 374
Nitrile latex / Layer thickness 1.0 mm / Break through time> 480 min (level 6)
In the Laboratory:
Nitrile latex / Layer thickness 0.1 mm / Break through time> 480 min (level 6) / EN 374
In the case of preparations, the resistance of work gloves to chemical agents must be checked before use as unpredictable. The gloves have a wear time that depends on the duration and the mode of use. General recommendation: the wearing time of protective gloves is recommended to be around 50% of the time measured in the laboratory.
(ii) Other
When handling the pure product wear full protective skin clothing.

(c) Respiratory protection
Not needed for normal use.
(d) Thermal hazards
No hazard to report
Environmental exposure controls:
Use according with good manufacturing practices, avoiding environmental dispersion. Alert the relevant authorities if case of spillage into rivers, sewers or contamination of soil or vegetation.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method
Physical state	Clear liquid	visivo/visual/visuel/visuell/zichtbaar
Colour	colorless	visivo/visual/visuel/visuell/zichtbaar
Odour	typical	empirico/empirical/empirique/empirisch
Odour threshold	not determined	
Melting point/freezing point	not determined	OECD Guideline 102
Boiling point or initial boiling point and boiling range	not determined	ASTM D86
Flammability	nonflammable	
Lower and upper explosion limit	nonflammable	
Flash point	> 65°C	ASTM D93
Auto-ignition temperature	nonflammable	DIN 51794
Decomposition temperature	irrelevant	
pH	5.00-7.50	UNI 24003
Kinematic viscosity	<= 14 mm2/sec (40 °C)	ASTM D7042
Solubility	miscible with water	
Water solubility	miscible with water	
Partition coefficient n-octanol/water (log value)	not determined	OECD Guideline 107
Vapour pressure	not determined	
Density and/or relative density	not determined	ISO 2811-3
Relative vapour density	not determined	UNI EN 13016-1:2018
Particle characteristics	not applicable	

9.2. Other information

Content of VOC ready to use condition: 0,00 %

9.2.1 Information with regard to physical hazard classes

Irrilevant

9.2.2 Other safety characteristics

Irrilevant

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

Related to contained substances:
galaxolide (HHCB):
Contact with direct heat sources.
(R)-p-mentha-1,8-diene (Limonene):
Heat, flames and sparks
Linalool:
Heat, flames and sparks.

10.5. Incompatible materials

None in particular.

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 = 23.710,0 mg/kg
ATE(mix) dermal = ∞
ATE(mix) inhal = ∞
(a) acute toxicity: based on available data, the classification criteria are not met.
(b) skincorrosion/irritation: galaxolide (HHCB): Rabbit: non-irritant to skin
(2E)-2-(phenylmethylidene)octanal (Hexyl Cinnamal): Irritating to skin
Linalool: Skin corrosion/irritation
Skin-rabbit-skin irritant-4h
Linalyl acetate: Skin-rabbit-Severe skin irritation-24h
India pig-skin-irritating to skin-24h
(c) serious eye damage/irritation: galaxolide (HHCB): Rabbit: non-irritant to eyes
(2E)-2-(phenylmethylidene)octanal (Hexyl Cinnamal): Not irritating to eyes
(R)-p-mentha-1,8-diene (Limonene): Eyes-rabbit
Result: no eye irritation
Linalool: Serious eye damage/eye irritation
Eyes-rabbit-irritating to eyes-Draize Test
(d) respiratoryorskinsensitisation: The product, if brought into contact with skin can cause skin sensitization.

(2E)-2-(phenylmethylidene)octanal (Hexyl Cinnamal): May cause sensitization by skin contact
(R)-p-mentha-1,8-diene (Limonene): Rat
Result: may cause sensitization by skin contact
(e) germ cell mutagenicity: based on available data, the classification criteria are not met.
(f) carcinogenicity: (R)-p-mentha-1,8-diene (Limonene): Cancerogenicity-rat-oral

carcinogen according to RTECS kidney, ureter, bladder: renal tumours: tumours of oncogenic Effects testing

Cancerogenicity-rat-oral

no doubt are second agent RTECS gastrointestinal cancers:
(g) eproductivetoxicity: galaxolide (HHCB): NOAEL 150 mg/kg bw/day (subchronic, rat)
(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 exposureOxydipropanol: NOAEL (rat): 470 - 530 mg/kg bw/day
galaxolide (HHCB): NOAEL 150 mg/kg bw/day (subchronic, rat)
2-ethyl-3-hydroxy-4-pyrone: NOAEL (rat): 200 mg/kg bw/day
(2E)-2-(phenylmethylidene)octanal (Hexyl Cinnamal): Orale
NOAEL (ratto): 100 - 500 mg/kg pc/giorno
NOEL (ratto): 250 mg/kg pc/giorno
dermico
NOAEL (ratto): 25 - 150 mg/kg pc/giorno
LOAEL (ratto): 125 mg/kg pc/giorno
3-ethoxy-4-hydroxybenzaldehyde: NOAEL (rat): 500 - 1 000 mg/kg bw/day
NOAEL (rat): 1 000 mg/kg diet
(R)-p-mentha-1,8-diene (Limonene): NOAEL (rat): 600 - 1 650 mg/kg bw/day
NOAEL (mouse): 500 - 1 650 mg/kg bw/day
NOAEL (dog): 100 mg/kg bw/day
Linalool: Oral
NOAEL (rat): 117 - 160 mg/kg bw/day
dermal
NOAEL (rat): 250 mg/kg bw/day
Linalyl acetate: orale
NOAEL (ratto): 117 - 160 mg/kg pc/giorno
dermico
NOAEL (ratto): 250 mg/kg pc/giorno
Coumarin: oral
NOAEL (mouse): 138.3 mg/kg bw/day
dermal
NOEL (rat): 42 - 50 mg/kg bw/day
(j) aspiration hazard: Linalyl acetate: Inhalation-Could irritate the respiratory system.
No toxicological tests were performed of this product. The health hazards were evaluated according to the test methods referred to in Regulation (EC) no 440/2008 of May 30, 2008 and subsequent amendments and in any case in accordance with article 9.2 of Regulation (EC) no 1272/2008 (CLP) of December 16, 2008.
Appear in chapters 2 and 15.
The complete toxicological data for components are available on demand.
Related to contained substances:
Oxydipropanol:
LD50 (rat) Oral (mg/kg body weight) = 14850
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 5010
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 2,34
galaxolide (HHCB):
LD50 (rat) Oral (mg/kg body weight) = 4640
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 10000
2-ethyl-3-hydroxy-4-pyrone:
LD50 (rat) Oral (mg/kg body weight) = 1220
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 5000
(2E)-2-(phenylmethylidene)octanal (Hexyl Cinnamal):

LD50 (rat) Oral (mg/kg body weight) = 3100
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 3000
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 2,12
3-ethoxy-4-hydroxybenzaldehyde:
LD50 (rat) Oral (mg/kg body weight) = 3160
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2000
(R)-p-mentha-1,8-diene (Limonene):
LD50 (rat) Oral (mg/kg body weight) = 2000
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 5000
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) = 3,2
Linalyl acetate:
LD50 (rat) Oral (mg/kg body weight) = 9000
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 5000
Coumarin:
LD50 (rat) Oral (mg/kg body weight) = 290
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 293

11.2. Information on other hazards

No data available.

SECTION 12. Ecological information

12.1. Toxicity

Related to contained substances:
Oxydipropanol:
Short-term toxicity to fish LC50 (4 days) 1 - 46.5 g / L Short-term toxicity to aquatic invertebrates EC50 (48 h) 100 mg / L
Toxicity to aquatic algae and cyanobacteria EC50 (72 h) 100 mg / L NOEC (72 h) 100 mg / L
C(E)L50 (mg/l) = 100
NOEC (mg/l) = 100
galaxolide (HHCB):
Short–term toxicity to fish
LC50 (4 days) 950 µg/L
Long–term toxicity to fish
NOEC (36 days) 68 µg/L
LC50 (36 days) 140 µg/L
Short–term toxicity to aquatic invertebrates
EC50 (48 h) 300 µg/L
Long–term toxicity to aquatic invertebrates
NOEC (21 days) 111 µg/L
NOEC (5.5 days) 37.5 - 150 µg/L
Toxicity to aquatic algae and cyanobacteria
EC50 (72 h) 723 - 854 µg/L
NOEC (72 h) 201 µg/L
C(E)L50 (mg/l) = 0,14
NOEC (mg/l) = 0,0375
2-ethyl-3-hydroxy-4-pyrone:
Short–term toxicity to fish
LC50 (4 days) 85 mg/L
Short–term toxicity to aquatic invertebrates
EC50 (48 h) 27 mg/L
Toxicity to aquatic algae and cyanobacteria
EC50 (72 h) 7.2 mg/L
NOEC (72 h) 770 µg/L
C(E)L50 (mg/l) = 7,2

NOEC (mg/l) = 0,77
(2E)-2-(phenylmethylidene)octanal (Hexyl Cinnamal):
Short–term toxicity to fish
LC50 (4 days) 1.7 mg/L
NOEC (4 days) 930 µg/L
Short–term toxicity to aquatic invertebrates
EC50 (48 h) 360 - 590 µg/L
Long–term toxicity to aquatic invertebrates
NOEC (21 days) 63 µg/L
EC50 (21 days) 157 µg/L
Toxicity to aquatic algae and cyanobacteria
EC50 (72 h) 65 µg/L
NOEC (72 h) 65 µg/L
C(E)L50 (mg/l) = 0,36
NOEC (mg/l) = 0,063
3-ethoxy-4-hydroxybenzaldehyde:
Short–term toxicity to fish
LC50 (4 days) 87.6 mg/L
Short–term toxicity to aquatic invertebrates
EC50 (48 h) 26.2 mg/L
Long–term toxicity to aquatic invertebrates
NOEC (21 days) 5.9 - 10 mg/L
Toxicity to aquatic algae and cyanobacteria
EC50 (72 h) 100 mg/L
NOEC (72 h) 21.2 - 30 mg/L
C(E)L50 (mg/l) = 26,200001
NOEC (mg/l) = 5,9
(R)-p-mentha-1,8-diene (Limonene):
Short–term toxicity to fish
LC50 (4 days) 460 - 720 µg/L
EC50 (4 days) 688 - 702 µg/L
Long–term toxicity to fish
NOEC (28 days) 80 µg/L
NOEC (8 days) 59 - 370 µg/L
Short–term toxicity to aquatic invertebrates
EC50 (48 h) 307 µg/L
Long–term toxicity to aquatic invertebrates
NOEC (21 days) 50 - 80 µg/L
EC50 (21 days) 188 µg/L
Toxicity to aquatic algae and cyanobacteria
EC50 (72 h) 214 - 320 µg/L
EC50 (48 h) 250 µg/L
NOEC (48 h) 90 µg/L
Toxicity to microorganisms
EC50 (3 h) 209 mg/L
C(E)L50 (mg/l) = 0,214
NOEC (mg/l) = 0,05
Linalool:
Short–term toxicity to fish
LC50 (4 days) 27.8 mg/L
LC50 (72 h) 27.8 mg/L
LC50 (48 h) 27.8 mg/L
LC50 (24 h) 27.8 mg/L
Short–term toxicity to aquatic invertebrates
EC50 (48 h) 59 mg/L
EC50 (24 h) 71 mg/L
NOEC (48 h) 25 mg/L
Toxicity to aquatic algae and cyanobacteria
EC50 (4 days) 88.3 - 156.7 mg/L

NOEC (mg/l) = 25
Linalyl acetate:
Short–term toxicity to fish
LC50 (4 days) 11 mg/L
Short–term toxicity to aquatic invertebrates
EC50 (48 h) 15 mg/L
NOEC (48 h) 10 mg/L
Toxicity to aquatic algae and cyanobacteria
EC50 (72 h) 62 mg/L
NOEC (72 h) 9.6 mg/L
C(E)L50 (mg/l) = 11
NOEC (mg/l) = 9,6
Coumarin:
Short–term toxicity to fish
LC50 (4 days) 1.324 - 2.94 mg/L
Long–term toxicity to fish
NOEC (30 days) 191 µg/L
Short–term toxicity to aquatic invertebrates
EC50 (48 h) 8.012 - 36.9 mg/L
LC50 (48 h) 8.012 mg/L
Long–term toxicity to aquatic invertebrates
NOEC (21 days) 500 µg/L
Toxicity to aquatic algae and cyanobacteria
EC50 (4 days) 1.452 mg/L
NOEC (72 h) 431 µg/L
C(E)L50 (mg/l) = 1,324
NOEC (mg/l) = 0,191

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:
Oxydipropanol:
No data
galaxolide (HHCB):
Under test conditions no biodegradation observed (COD 3 g O2/g test material)
2-ethyl-3-hydroxy-4-pyrone:
Readily biodegradable (100%)
(2E)-2-(phenylmethylidene)octanal (Hexyl Cinnamal):
Readily biodegradable
3-ethoxy-4-hydroxybenzaldehyde:
Readily biodegradable (100%)
(R)-p-mentha-1,8-diene (Limonene):
readily biodegradable
Linalool:
Readily biodegradable
Linalyl acetate:
Readily biodegradable
Coumarin:
Readily biodegradable

12.3. Bioaccumulative potential

Related to contained substances:
galaxolide (HHCB):
Bioaccumulation Factor (BCF) - L/kg ww
1 584 L/kg ww
Coumarin:
Leuciscus idus melanotus-3 d-46 gr/l
Bioconcentration factor (BCF):< 10

12.4. Mobility in soil

Related to contained substances:
Oxydipropanol:
53.7 %
galaxolide (HHCB):
Half-life in soil
3.5 months @ 12 °C
3-ethoxy-4-hydroxybenzaldehyde:
3.5 %
(R)-p-mentha-1,8-diene (Limonene):
Koc
1 120 - 6 324 L
Linalyl acetate:
0.84 %
Coumarin:
log Koc
1.63 @ 20 °C

12.5. Results of PBT and vPvB assessment

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII

12.6. Endocrine disrupting properties

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100

12.7. Other adverse effects

No adverse effects

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Disposal of the mixture:
Recover if possible. Send to authorised disposal plants. Operate in accordance with current local and national rules.

Disposal of packaging:
Always clean the packaging before disposal or recycling by rinsing thoroughly with water, cleaning solutions or if possible by treating them as described above. Empty and clean packaging can be recycled or disposed of in accordance with regulations in force. Refers to the environmental labelling for details.
Check local rules for disposal.

SECTION 14. Transport information

14.1. UN number or ID number

ADR/RID/IMDG/ICAO-IATA: 0000
ADR exemption because compliance with the following characteristics:
Combination packagings: per inner packaging 5 L per package 30 Kg
Inner packagings placed in skrink-wrapped or stretch-wrapped trays: per inner packaging 5 L per package 20 Kg

14.2. UN proper shipping name

ADR/RID/IMDG: MATERIA PERICOLOSA PER L'AMBIENTE, LIQUIDA, N.A.S. (galaxolide (HHCB), (2E)-2-(phenylmethylidene)octanal (Hexyl Cinnamal), (R)-p-menta-1,8-diene (Limonene), Coumarin)
ADR/RID/IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (galaxolide (HHCB), (2E)-2-(phenylmethylidene)octanal (Hexyl Cinnamal), (R)-p-mentha-1,8-diene (Limonene), Coumarin)

ICAO-IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (galaxolide (HHCB), (2E)-2-(phenylmethylidene)octanal (Hexyl Cinnamal), (R)-p-mentha-1,8-diene (Limonene), Coumarin)

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO-IATA: Class : 9
ADR/RID/IMDG/ICAO-IATA: Label :
ADR: Tunnel restriction code : --
ADR/RID/IMDG/ICAO-IATA: Limited quantities : 5 L
IMDG - EmS : F-A, S-F

14.4. Packing group

ADR/RID/IMDG/ICAO-IATA: III

14.5. Environmental hazards

ADR/RID/ICAO-IATA: Product is environmentally hazardous
IMDG: Marine polluting agent : Yes

14.6. Special precautions for user

The goods must be transported by vehicles carrying dangerous goods in accordance with the requirements published in the ADR Convention and in national regulations. The goods must be in their original packaging and in containers made of materials resistant to content and not likely to generate with this dangerous reaction. Insiders at the loading and unloading of dangerous goods must have received adequate training on the risks and the possible procedures in case of emergency.

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

More information:
The evaluation of information on the dangers of mixtures were made in accordance with the criteria referred to in articles 8 and 9 of Regulation (EC) no 1272/2008.
EU reference legislation:
- Regulation (EC) 1907/2006 (REACH), current text.
- Regulation (EC) 440/2008 (REACH test methods), current text.
- Regulation (EC) 1272/2008 (CLP), current text.
- Regulation (EU) 878/2020 (drafting of safety data sheets).
- Regulation (EC) 648/2004, current text (relating to detergents).
- Regulation (EC) 1223/2009, current text (cosmetic products).
- ADR 2021 agreement

The substance / mixture complies with / does not fall within the scope of the following Regulations:
- Regulation (EC) 1005/2009, current text (substances that reduce the Ozone layer)
- Regulation (EU) 2019/1021, current text (persistent organic pollutants - POPs)
- Regulation (EU) 649/2012, current text (export and import of dangerous chemicals)
- Directive (EU) 2012/18 (Seveso III)

Other statements:
- The product is free from GMOs (genetically modified organisms), it is not obtained or derived from GMOs, as defined in Regulation (EC) 834/2007, current text
- The product is excluded from the field of application of Regulation (EC) 1139/2003 (BSE) and of Regulation (EC) no. 999/2001 (TSE), current text, because it is not of animal origin, does not contain animal derivatives and has not come into contact with animal derivatives at any stage of production.
- Our company does not perform or commission animal tests on the product or its components.
- The product has not been treated with ionizing radiation.

- Directive 2010/59 / EU: the product is free from residual solvents or if present these do not exceed the maximum limits provided for in the Directive.
- The product is free from residues of unauthorized contaminants or the maximum limits provided for in Regulation (EC) 396/2005, current text, are not exceeded for those authorized.

Any registrations, restrictions, belonging to restricted categories of one or more members, are listed below. The absence of information means that no further specification is necessary or that all components belong to the lowest risk category.
The list of Regulations reported is not exhaustive of all local, national and Community information applicable to the substance / mixture (including its components). For additional information, contact the Person Responsible for this Safety Data Sheet.
All substances are registered / pre-registered / identified for registration / exempt from registration in the ECHA database of chemicals.
Seveso category:
E2 - ENVIRONMENTAL HAZARDS
REGULATION (EU) No 1357/2014 - waste:
HP14 - Ecotoxic
Substances in the Candidate List (REACH Article 59)
Based on available data, no SVHC substances are present

15.2. Chemical safety assessment

No chemical safety assessment was carried out by the supplier

SECTION 16. Other information

16.1. Other information

Description of the hazard statements exposed to point 3
H400 = Very toxic to aquatic life.
H410 = Very toxic to aquatic life with long lasting effects.
H302 = Harmful if swallowed.
H317 = May cause an allergic skin reaction.
H411 = Toxic to aquatic life with long lasting effects.
H319 = Causes serious eye irritation.
H226 = Flammable liquid and vapour.
H304 = May be fatal if swallowed and enters airways.
H315 = Causes skin irritation.
H412 = Harmful to aquatic life with long lasting effects.
Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:
Classification according to Regulation (EC) Nr. 1272/2008
H317 - May cause an allergic skin reaction. Classification procedure: Calculation method
H411 - Toxic to aquatic life with long lasting effects. Classification procedure: Calculation method
Carefully read the instructions for use on the packaging and/or on the product leaflet.
The information contained in this sheet is provided in good faith and refers to the current state of our scientific and technical knowledge at the date of revision of the sheet. All the information on the sheet regarding the composition and chemical-physical properties are provided exclusively for correct handling and use of the product and for any interventions in the event of an emergency. They do not indicate the complete composition of the product (shown on the packaging) nor do they represent any sales specification.
Relevant key information on possibly available exposure scenarios for substances are summarized in sections 1.2, 7.3 and 8.2 of this safety data sheet. The information relates only to the substance/mixture specifically designated in section 1 and is not valid if the substance/mixture is used in combination with other materials or in processes not specifically specified in section 1.
The recipient of this Safety Data Sheet is required to ensure that the information contained is read and understood by all persons who handle, store, use, or otherwise come into contact in any way with the substance / mixture to which this sheet refers. In particular, the recipient must provide adequate training to personnel assigned to the use of substances or mixtures. The recipient must ensure the suitability and completeness of the information in relation to the specific use he makes of the substance / mixture. The substance / mixture to which this sheet refers must not be used for uses other than those specified in section 1. The Safety Data Sheet Manager assumes no responsibility for improper uses.

Since the use of the product does not fall under the direct control of the supplier, it is the user's obligation to comply, under his own responsibility, with the laws and regulations in force regarding national and Community hygiene and safety.
Additional contact person responsible for the contents of the safety data sheet: Fabrizio Cioci. Tel. +39 338 3446012 MSDS@consulting-in-cosmetics.com
Bibliography:
Supplier Safety Data Sheets. Related exposure scenarios.
European Commission, Health and Consumers, ECETOC center for chemical safety assessment
EFSA Journal. European Food Safety Authority
ECHA Brief Profiles (http://echa.europa.eu)
eChemPortal (OECD) Existing Chemicals Database
U.S. National Library of Medicine: ChemIDplus
CIR. Cosmetic Ingredient review
The Good Scents Company (http://www.thegoodscentscompany.com)
EFFA code of practices. IFRA Standards Library. RIFM Fragrance Material Safety Assessment Center
FEMA Flavor Ingredients Library
INRS Fiche Toxicologique
U.S. National Toxicology Program. NIOSH Pocket Guide to Chemical Hazard
U.S. FDA. SCOGS Selected Committee on GRAS Substances
BIBRA Toxicology advice & consulting
HERA Human and Environmental Risk Assessment on ingredients of household cleaning products
Pubchem Database
WHO. INCHEM Internationalally Peer Reviewed CHemical Safety Information
NICNAS Australian Industrial Chemicals Intruduction Scheme
USDA Dr. Duke's Phytochemical and Ethnobotanical Databases