SDS Report No.: 70.431.23.15549.01

Date: 2023-10-18

Product Name:	Flavor pen
End Use:	adding flavor
Country of Origin:	China
Sample Submitted:	The sample(s) was (were) submitted by applicant and identified.
Test Result:	Refer to the data listed in following pages
Test Request:	**Safety Data Sheet (SDS)**

TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch
Testing Center

Prepared by:

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Authorized by:

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Technical Manager

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Unless otherwise agreed upon, Pass or Fail verdicts are given based on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

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Flavor pen

Version No: **1.4**
Safety Data Sheet (Conforms to Annex II of REACH (1907/2006) - Regulation 2020/878)

Issue Date: **18/10/2023**
Print Date: **18/10/2023**
S.REACH.GB-NIR.EN

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

1.1. Product Identifier

Product name	Flavor pen
Chemical Name	Not Applicable
Synonyms	Not Available
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Chemical formula	Not Applicable
Other means of identification	Not Available

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

Relevant identified uses	Adding Flavor
Uses advised against	No specific uses advised against are identified.

1.3. Details of the manufacturer or supplier of the safety data sheet

Registered company name	
Address	
Telephone	
Fax	
Website	
Email	

1.4. Emergency telephone number

Association / Organisation	
Emergency telephone numbers	
Other emergency telephone numbers	

SECTION 2 Hazards identification

2.1. Classification of the substance or mixture

Classification according to regulation (EC) No 1272/2008 [CLP] and amendments [1]	H304 - Aspiration Hazard Category 1, H315 - Skin Corrosion/Irritation Category 2, H317 - Sensitisation (Skin) Category 1B, H319 - Serious Eye Damage/Eye Irritation Category 2, H411 - Hazardous to the Aquatic Environment Long-Term Hazard Category 2
Legend:	*1. Classified by Chemwatch; 2. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI*

2.2. Label elements

Hazard pictogram(s)	
Signal word	**Danger**

Hazard statement(s)

H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.

Supplementary statement(s)

EUH018	In use may form flammable/explosive vapour- air mixture.
EUH019	May form explosive peroxides.

Precautionary statement(s) Prevention

P280	Wear protective gloves, protective clothing, eye protection and face protection.
P261	Avoid breathing dust/fumes.

Precautionary statement(s) Response

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider.
P331	Do NOT induce vomiting.

Precautionary statement(s) Storage

P405	Store locked up.

Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

2.3. Other hazards

Ingestion may produce health damage*.
Limited evidence of a carcinogenic effect*.
Vapours potentially cause drowsiness and dizziness*.

ethyl acetate	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)

SECTION 3 Composition / information on ingredients

3.1. Substances

See 'Composition on ingredients' in Section 3.

3.2. Mixtures

1. CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classification according to regulation (EC) No 1272/2008 [CLP] and amendments	SCL / M-Factor	Nanoform Particle Characteristics
Common ingredients on each color					
1. 65381-09-1 2.265-724-3 3.Not Available 4.Not Available	60-88	Caprylic-capric acid triglyceride	Not Classified [3]	Not Available	Not Available
Additional ingredients on each color					
1.STRONG MENTHOL 1. 89-78-1 2.201-939-0 3.Not Available 4.Not Available	30	Menthol	Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2; H315, H319 [3]	Not Available	Not Available
1. 68917-18-0 2.Not Available 3.Not Available 4.Not Available	15	Cornmint oil	Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1, Hazardous to the Aquatic Environment Long-Term Hazard Category 2; H315, H317, H411, EUH019 [3]	Not Available	Not Available
1. 8008-79-5 2.Not Available 3.Not Available 4.Not Available	3	Spearmint oil	Acute Tox. 4, Aspiration Hazard Category 1, Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1, Hazardous to the Aquatic H317, H411, EUH018, EUH019 [3]	Not Available	Not Available

Continued...

1. CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classification according to regulation (EC) No 1272/2008 [CLP] and amendments	SCL / M-Factor	Nanoform Particle Characteristics
2.BLUEBERRY 1. 105-54-4 2.203-306-4 3.Not Available 4.Not Available	15	Ethyl butyrate	Flammable Liquids Category 3; H226 [3]	Not Available	Not Available
1. 5471-51-2 2.226-806-4 3.Not Available 4.Not Available	5	4-(P-hydroxyphenyl)-2-butanone	Not Classified [3]	Not Available	Not Available
1. 928-96-1 2.213-192-8 3.Not Available 4.Not Available	3	Cis-3-hexen-1-ol	Flammable Liquids Category 3, Serious Eye Damage/Eye Irritation Category 2; H226, H319 [3]	Not Available	Not Available
3.WATERMELON 1. 141-78-6 2.205-500-4 3.607-022-00-5 4.Not Available	10	Ethyl acetate *	Flammable Liquids Category 2, Serious Eye Damage/Eye Irritation Category 2, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3; H225, H319, H336 [2]	Not Available	Not Available
1. 2277-19-2 2.218-900-9 3.Not Available 4.Not Available	1	Cis-6-nonenal	Skin Corrosion/Irritation Category 2; H315 [3]	Not Available	Not Available
1. 35854-86-5 2.252-764-1 3.Not Available 4.Not Available	1	Cis-6-nonen-1-ol	Not Classified [3]	Not Available	Not Available
4.ICE WATERMELON 1. 1490-04-6* 2.216-074-4 3.Not Available 4.Not Available	15	P-mentha-3-ol	Skin Corrosion/Irritation Category 2; H315 [1]	Not Available	Not Available
1. 8006-90-4 2.Not Available 3.Not Available 4.Not Available	5	Peppermint oil	Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1, Hazardous to the Aquatic Environment Long-Term Hazard Category 2; H315, H317, H411, EUH019 [3]	Not Available	Not Available
1. 928-96-1 2.213-192-8 3.Not Available 4.Not Available	2	Cis-3-hexen-1-ol	Flammable Liquids Category 3, Serious Eye Damage/Eye Irritation Category 2; H226, H319 [3]	Not Available	Not Available
1. 60-12-8 2.200-456-2 3.Not Available 4.Not Available	1	Phenethyl alcohol	Acute Tox. 4, Serious Eye Damage/Eye Irritation Category 2; H302, H319, EUH019 [3]	Not Available	Not Available
1. 2277-19-2 2.218-900-9 3.Not Available 4.Not Available	0.50	Cis-6-nonenal	Skin Corrosion/Irritation Category 2; H315 [3]	Not Available	Not Available
5.ICE TROPICAL FRUIT 1. 8008-56-8 2.Not Available 3.Not Available 4.Not Available	10	Lemon oil	Flammable Liquids Category 3, Aspiration Hazard Category 1, Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1, Hazardous to the Aquatic Environment Acute Hazard Category 1, Hazardous to the Aquatic Environment Long-Term Hazard Category 1; H226, H304, H315, H317, H400, H410, EUH019 [3]	Not Available	Not Available

Continued...

1. 1490-04-6* 2.216-074-4 3.Not Available 4.Not Available	10	P-mentha-3-ol	Skin Corrosion/Irritation Category 2; H315 [1]	Not Available	Not Available
1. 89-48-5* 2.201-911-8 3.Not Available 4.Not Available	5	DL-menthyl acetate	Hazardous to the Aquatic Environment Long-Term Hazard Category 2; H411 [1]	Not Available	Not Available
6.APPLE 1. 659-70-1 2.211-536-1 3.Not Available 4.Not Available	10	Iso-amyl iso-valerate	Hazardous to the Aquatic Environment Long-Term Hazard Category 2; H411 [3]	Not Available	Not Available
1. 141-78-6 2.205-500-4 3.607-022-00-5 4.Not Available	10	Ethyl acetate *	Flammable Liquids Category 2, Serious Eye Damage/Eye Irritation Category 2, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3; H225, H319, H336 [2]	Not Available	Not Available
1. 6728-26-3 2.229-778-1 3.Not Available 4.Not Available	5	Trans-2-hexenal	Flammable Liquids Category 3, Acute Tox. 4, Acute Tox. 3, Skin Sens. 1B, Serious Eye Damage/Eye Irritation Category 2, Hazardous to the Aquatic Environment Long-Term Hazard Category 2; H226, H302, H311, H317, H319, H411, EUH019 [3]	Not Available	Not Available
7.ICE APPLE 1. 1490-04-6* 2.216-074-4 3.Not Available 4.Not Available	10	P-mentha-3-ol	Skin Corrosion/Irritation Category 2; H315 [1]	Not Available	Not Available
1. 141-78-6 2.205-500-4 3.607-022-00-5 4.Not Available	10	Ethyl acetate *	Flammable Liquids Category 2, Serious Eye Damage/Eye Irritation Category 2, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3; H225, H319, H336 [2]	Not Available	Not Available
1. 659-70-1 2.211-536-1 3.Not Available 4.Not Available	5	Iso-amyl iso-valerate	Hazardous to the Aquatic Environment Long-Term Hazard Category 2; H411 [3]	Not Available	Not Available
1. 6728-26-3 2.229-778-1 3.Not Available 4.Not Available	3	Trans-2-hexenal	Flammable Liquids Category 3, Acute Tox. 4, Acute Tox. 3, Skin Sens. 1B, Serious Eye Damage/Eye Irritation Category 2, Hazardous to the Aquatic Environment Long-Term Hazard Category 2; H226, H302, H311, H317, H319, H411, EUH019 [3]	Not Available	Not Available
8.ICE CIRUS 1. 8008-57-9 2.Not Available 3.Not Available 4.Not Available	20	Orange oil	Flammable Liquids Category 3, Aspiration Hazard Category 1, Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1, Hazardous to the Aquatic Environment Acute Hazard Category 1, Hazardous to the Aquatic Environment Long-Term Hazard Category 1; H226, H304, H315, H317, H400, H410, EUH019 [3]	Not Available	Not Available
1. 1490-04-6* 2.216-074-4 3.Not Available 4.Not Available	15	P-mentha-3-ol	Skin Corrosion/Irritation Category 2; H315 [1]	Not Available	Not Available
1. 8008-31-9 2.Not Available 3.Not Available 4.Not Available	5	Mandarin oil	Flammable Liquids Category 3, Aspiration Hazard Category 1, Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1, Hazardous to the Aquatic Environment Acute Hazard Category 1, Hazardous to the Aquatic Environment Long-Term Hazard Category 1; H226, H304, H315, H317, H400, H410, EUH019 [3]	Not Available	Not Available
9.ICE COCONUT 1. 1490-04-6* 2.216-074-4 3.Not Available 4.Not Available	15	P-mentha-3-ol	Skin Corrosion/Irritation Category 2; H315 [1]	Not Available	Not Available
1. 104-61-0 2.203-219-1 3.Not Available 4.Not Available	6	Gamma-nonalactone	Not Classified [3]	Not Available	Not Available
1. 698-76-0 2.211-820-5 3.Not Available 4.Not Available	4	Delta-octalactone	Not Classified [3]	Not Available	Not Available

Continued...

1. CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classification according to regulation (EC) No 1272/2008 [CLP] and amendments	SCL / M-Factor	Nanoform Particle Characteristics
10.ICE VANILLA 1. 1490-04-6* 2.216-074-4 3.Not Available 4.Not Available	15	P-mentha-3-ol	Skin Corrosion/Irritation Category 2; H315 [1]	Not Available	Not Available
1. 121-33-5 2.204-465-2 3.Not Available 4.Not Available	10	Vanillin	Serious Eye Damage/Eye Irritation Category 2; H319 [3]	Not Available	Not Available
1. 118-71-8 2.204-271-8 3.Not Available 4.Not Available	5	Maltol	Acute Tox. 4; H302 [3]	Not Available	Not Available
1. 120-14-9 2.204-373-2 3.Not Available 4.Not Available	3	3,4-Dimethoxybenzaldehyde	Acute Tox. 4; H302 [3]	Not Available	Not Available

Legend:	*1. Classified by Chemwatch; 2. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 3. Classification drawn from C&L; * EU IOELVs available; [e] Substance identified as having endocrine disrupting properties*

SECTION 4 First aid measures

4.1. Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: ▸ Wash out immediately with fresh running water. ▸ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▸ Seek medical attention without delay; if pain persists or recurs seek medical attention. ▸ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: ▸ Immediately remove all contaminated clothing, including footwear. ▸ Flush skin and hair with running water (and soap if available). ▸ Seek medical attention in event of irritation.
Inhalation	▸ If fumes, aerosols or combustion products are inhaled remove from contaminated area. ▸ Other measures are usually unnecessary.
Ingestion	▸ If swallowed do **NOT** induce vomiting. ▸ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ▸ Observe the patient carefully. ▸ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ▸ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ▸ Seek medical advice.

Continued...

4.2 Most important symptoms and effects, both acute and delayed

See Section 11

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

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours. Treat symptomatically.

In acute poisonings by essential oils the stomach should be emptied by aspiration and lavage. Give a saline purgative such as sodium sulfate (30 g in 250 ml water) unless catharsis is already present. Demulcent drinks may also be given. Large volumes of fluid should be given provided renal function is adequate. [MARTINDALE: The Extra Pharmacopoeia, 28th Ed.]

SECTION 5 Firefighting measures

5.1. Extinguishing media

- Alcohol stable foam.
- Dry chemical powder.

For **SMALL FIRES**:
Dry chemical, CO2, water spray or foam.
For **LARGE FIRES**:
Water-spray, fog or foam.

5.2. Special hazards arising from the substrate or mixture

Fire Incompatibility	‣ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

5.3. Advice for firefighters

Fire Fighting	‣ Alert Fire Brigade and tell them location and nature of hazard. ‣ Wear breathing apparatus plus protective gloves.
Fire/Explosion Hazard	**WARNING:** In use may form flammable/ explosive vapour-air mixtures. ‣ Flammable solid which burns and propagates flame easily, even when partly wetted with water. Any source of ignition, i.e. friction, heat, sparks or flame, may cause fire or explosion. Combustion products include: , carbon monoxide (CO) , carbon dioxide (CO2) , other pyrolysis products typical of burning organic material. **WARNING**: Long standing in contact with air and light may result in the formation of potentially explosive peroxides. **CARE**: Water in contact with hot liquid may cause foaming and a steam explosion with wide scattering of hot oil and possible severe burns. Foaming may cause overflow of containers and may result in possible fire.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

See section 8

6.2. Environmental precautions

See section 12

6.3. Methods and material for containment and cleaning up

Minor Spills	Environmental hazard - contain spillage. ‣ Remove all ignition sources. ‣ **DO NOT** touch or walk through spilled material.
Major Spills	Environmental hazard - contain spillage. **CARE**: Absorbent materials wetted with occluded oil must be moistened with water as they may auto-oxidize, become self heating and ignite. Some oils slowly oxidise when spread in a film and oil on cloths, mops, absorbents may autoxidise and generate heat, smoulder, ignite and burn. In the workplace oily rags should be collected and immersed in water. ‣ Clear area of personnel and move upwind. ‣ Alert Fire Brigade and tell them location and nature of hazard.

Continued...

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Safe handling	‣ Avoid all personal contact, including inhalation. ‣ Wear protective clothing when risk of overexposure occurs. ‣ Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions) ‣ Minimise airborne dust and eliminate all ignition sources. Keep away from heat, hot surfaces, sparks, and flame.
Fire and explosion protection	See section 5
Other information	Phenylpropanoids are labile and after unsealing the container, they should be stored refrigerated or frozen under an inert gas such as nitrogen/argon. Phenylpropanoids are easily oxidised in the liquid state and should be used them within a short period of time after preparation. Consider storage under inert gas. Essential oil oxidation accelerates with the concentration of dissolved oxygen, which in turn depends largely on oxygen partial pressure in the head-space as well as ambient temperature. Depending on the particular essential oil and the ambient temperature, oxidation will not necessarily be prevented by avoidance of container head-space. **FOR MINOR QUANTITIES:** ‣ Store in an indoor fireproof cabinet or in a room of noncombustible construction. ‣ Provide adequate portable fire-extinguishers in or near the storage area.

7.2. Conditions for safe storage, including any incompatibilities

Suitable container	‣ Glass container is suitable for laboratory quantities For low viscosity materials and solids: Drums and jerricans must be of the non-removable head type. Where a can is to be used as an inner package, the can must have a screwed enclosure.
Storage incompatibility	d-Limonene: ‣ forms unstable peroxides in storage, unless inhibited; may polymerise ‣ reacts with strong oxidisers and may explode or combust ‣ is incompatible with strong acids, including acidic clays, peroxides, halogens, vinyl chloride and iodine pentafluoride flow or agitation may generate electrostatic charges due to low conductivity For lactones (also known as cyclic esters): ·The reactions of lactones are similar to those of esters ·Heating a lactone with a base (sodium hydroxide) will hydrolyse the lactone to its parent compound, the straight chained bifunctional compound. Like straight-chained esters, the hydrolysis-condensation reaction of lactones is a reversible reaction, with an equilibrium. ‣ Esters react with acids to liberate heat along with alcohols and acids. ‣ Strong oxidising acids may cause a vigorous reaction with esters that is sufficiently exothermic to ignite the reaction products. Due to their structural relationship within the same chemical group, essential oil components are known to easily convert into each other by oxidation, isomerisation, cyclisation, or dehydrogenation reactions, triggered either enzymatically or chemically. Temperature, light, and oxygen availability are recognised to have a crucial impact on essential oil integrity. Terpenoids and terpenes, are generally unsaturated, are thermolabile, are often volatile and may be easily oxidised or hydrolysed depending on their respective structure. Terpenoids are subject to autoxidation. Unsaturated mono- and sesquiterpenes, typically found in essential oils such as those from pine and turpentine, are readily altered upon storage Moreover, electron-donating groups and increasing alkyl substitution contribute to a stronger carbon-peroxide bond through a hyperconjugative effect, thus leading to more stable and subsequently built-up hydroperoxides ‣ The various oxides of nitrogen and peroxyacids may be dangerously reactive in the presence of alkenes. BRETHERICK L.: Handbook of Reactive Chemical Hazards ‣ Avoid reaction with strong Lewis or mineral acids. **HAZARD**: ‣ Although anti-oxidants may be present, in the original formulation, these may deplete over time as they come into contact with air. ‣ Rags wet / soaked with unsaturated hydrocarbons / drying oils may auto-oxidise; generate heat and, in-time, smoulder and ignite. ·The interaction of alkenes and alkynes with nitrogen oxides and oxygen may produce explosive addition products; these may form at very low temperatures and explode on heating to higher temperatures (the addition products from 1,3-butadiene and cyclopentadiene form rapidly at -150 C and ignite or explode on warming to -35 to -15 C). These derivatives ("pseudo- nitrosites") were formerly used to characterise terpene hydrocarbons.
Hazard categories in accordance with Regulation (EC) No 1272/2008	E2: Hazardous to the Aquatic Environment in Category Chronic 2
Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the	E2 Lower- / Upper-tier requirements: 200 / 500

Continued...

7.3. Specific end use(s)

See section 1.2

SECTION 8 Exposure controls / personal protection

8.1. Control parameters

Ingredient	DNELs Exposure Pattern Worker	PNECs Compartment
caprylic-capric acid triglyceride	Dermal 25.21 mg/kg bw/day (Systemic, Chronic) Inhalation 177.79 mg/m³ (Systemic, Chronic) *Dermal 12.61 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 43.84 mg/m³ (Systemic, Chronic) ** *Oral 12.61 mg/kg bw/day (Systemic, Chronic) **	0.03 g/kg food (Oral)
menthol	Dermal 13.15 mg/kg bw/day (Systemic, Chronic) Inhalation 46.4 mg/m³ (Systemic, Chronic) Inhalation 10 mg/m³ (Local, Chronic) Dermal 160 mg/kg bw/day (Systemic, Acute) Inhalation 280 mg/m³ (Systemic, Acute) Inhalation 10 mg/m³ (Local, Acute) *Dermal 4.7 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 8.17 mg/m³ (Systemic, Chronic) ** *Oral 4.7 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 13 mg/m³ (Local, Chronic) ** *Dermal 80 mg/kg bw/day (Systemic, Acute) ** *Inhalation 13 mg/m³ (Systemic, Acute) ** *Oral 7.5 mg/kg bw/day (Systemic, Acute) ** *Inhalation 13 mg/m³ (Local, Acute) **	0.016 mg/L (Water (Fresh)) 15.6 µg/L (Water - Intermittent release) 0.002 mg/L (Water (Marine)) 0.201 mg/kg sediment dw (Sediment (Fresh Water)) 0.02 mg/kg sediment dw (Sediment (Marine)) 0.031 mg/kg soil dw (Soil) 2.37 mg/L (STP) 83.3 mg/kg food (Oral)
ethyl butyrate	Dermal 2.33 mg/kg bw/day (Systemic, Chronic) Inhalation 49.3 mg/m³ (Systemic, Chronic) *Dermal 0.833 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 7.4 mg/m³ (Systemic, Chronic) ** *Oral 0.833 mg/kg bw/day (Systemic, Chronic) **	29.7 µg/L (Water (Fresh)) 1 mg/L (Water - Intermittent release) 2.97 µg/L (Water (Marine)) 0.173 mg/kg sediment dw (Sediment (Fresh Water)) 17.3 µg/kg sediment dw (Sediment (Marine)) 17.1 µg/kg soil dw (Soil) 23.6 mg/L (STP)
4-(p-hydroxyphenyl)-2-butanone	Dermal 170 mg/kg bw/day (Systemic, Chronic) Inhalation 114.24 mg/m³ (Systemic, Chronic) Dermal 170 mg/kg bw/day (Systemic, Acute) Inhalation 114.24 mg/m³ (Systemic, Acute) *Dermal 170 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 59.5 mg/m³ (Systemic, Chronic) ** *Oral 17 mg/kg bw/day (Systemic, Chronic) ** *Dermal 170 mg/kg bw/day (Systemic, Acute) ** *Inhalation 59.5 mg/m³ (Systemic, Acute) ** *Oral 17 mg/kg bw/day (Systemic, Acute) **	0.1 mg/L (Water (Fresh)) 0.01 mg/L (Water (Marine)) 0.307 mg/kg sediment dw (Sediment (Fresh Water)) 0.031 mg/kg sediment dw (Sediment (Marine)) 0.198 mg/kg soil dw (Soil)
cis-3-hexen-1-ol	Dermal 3.33 mg/kg bw/day (Systemic, Chronic) Inhalation 11.75 mg/m³ (Systemic, Chronic) *Dermal 1.67 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 2.9 mg/m³ (Systemic, Chronic) ** *Oral 1.67 mg/kg bw/day (Systemic, Chronic) **	Not Available
ethyl acetate	Dermal 63 mg/kg bw/day (Systemic, Chronic) Inhalation 734 mg/m³ (Systemic, Chronic) Inhalation 734 mg/m³ (Local, Chronic) Inhalation 1 468 mg/m³ (Systemic, Acute) Inhalation 1 468 mg/m³ (Local, Acute) *Dermal 37 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 367 mg/m³ (Systemic, Chronic) ** *Oral 4.5 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 367 mg/m³ (Local, Chronic) ** *Inhalation 734 mg/m³ (Systemic, Acute) ** *Inhalation 734 mg/m³ (Local, Acute) **	0.24 mg/L (Water (Fresh)) 1.65 mg/L (Water - Intermittent release) 0.024 mg/L (Water (Marine)) 1.15 mg/kg sediment dw (Sediment (Fresh Water)) 0.115 mg/kg sediment dw (Sediment (Marine)) 0.148 mg/kg soil dw (Soil) 650 mg/L (STP) 0.2 g/kg food (Oral)
p-mentha-3-ol	Not Available	2.24 µg/L (Water (Fresh)) 0.224 µg/L (Water (Marine)) 32 mg/L (STP)
peppermint oil	Dermal 5 mg/kg bw/day (Systemic, Chronic) Inhalation 35.3 mg/m³ (Systemic, Chronic) *Dermal 2.5 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 8.7 mg/m³ (Systemic, Chronic) ** *Oral 2.5 mg/kg bw/day (Systemic, Chronic) **	5.4 µg/L (Water (Fresh)) 5.77 µg/L (Water - Intermittent release) 0.54 µg/L (Water (Marine)) 1.3 mg/kg sediment dw (Sediment (Fresh Water)) 0.13 mg/kg sediment dw (Sediment (Marine)) 0.29 mg/kg soil dw (Soil) 1.8 mg/L (STP)

Continued...

Ingredient	DNELs Exposure Pattern Worker	PNECs Compartment
phenethyl alcohol	Dermal 21.2 mg/kg bw/day (Systemic, Chronic) Inhalation 59.9 mg/m³ (Systemic, Chronic) *Dermal 12.7 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 17.7 mg/m³ (Systemic, Chronic) ** *Oral 5.1 mg/kg bw/day (Systemic, Chronic) ** *Oral 5.1 mg/kg bw/day (Systemic, Acute) **	0.215 mg/L (Water (Fresh)) 2.15 mg/L (Water - Intermittent release) 0.021 mg/L (Water (Marine)) 1.454 mg/kg sediment dw (Sediment (Fresh Water)) 0.145 mg/kg sediment dw (Sediment (Marine)) 0.164 mg/kg soil dw (Soil) 10 mg/L (STP)
DL-menthyl acetate	Dermal 9.5 mg/kg bw/day (Systemic, Chronic) Inhalation 33.6 mg/m³ (Systemic, Chronic) *Dermal 4.8 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 8.3 mg/m³ (Systemic, Chronic) ** *Oral 4.8 mg/kg bw/day (Systemic, Chronic) **	2.7 µg/L (Water (Fresh)) 27 µg/L (Water - Intermittent release) 0.27 µg/L (Water (Marine)) 0.434 mg/kg sediment dw (Sediment (Fresh Water)) 0.043 mg/kg sediment dw (Sediment (Marine)) 0.085 mg/kg soil dw (Soil) 0.26 mg/L (STP) 317 mg/kg food (Oral)
iso-amyl iso-valerate	Not Available	3.47 µg/L (Water (Fresh)) 34.7 µg/L (Water - Intermittent release) 0.347 µg/L (Water (Marine)) 172 µg/kg sediment dw (Sediment (Fresh Water)) 17.2 µg/kg sediment dw (Sediment (Marine)) 32.4 µg/kg soil dw (Soil) 10 mg/L (STP)
orange oil	Not Available	2.24 µg/L (Water (Fresh)) 0.224 µg/L (Water (Marine)) 32 mg/L (STP)
mandarin oil	Dermal 6.67 mg/kg bw/day (Systemic, Chronic) Inhalation 23.3 mg/m³ (Systemic, Chronic) Dermal 185.8 µg/cm² (Local, Acute) *Dermal 3.33 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 5.8 mg/m³ (Systemic, Chronic) ** *Oral 3.33 mg/kg bw/day (Systemic, Chronic) ** *Dermal 92.9 µg/cm² (Local, Acute) **	5.4 µg/L (Water (Fresh)) 5.77 µg/L (Water - Intermittent release) 0.54 µg/L (Water (Marine)) 1.3 mg/kg sediment dw (Sediment (Fresh Water)) 0.13 mg/kg sediment dw (Sediment (Marine)) 0.29 mg/kg soil dw (Soil) 2.1 mg/L (STP)
gamma-nonalactone	Dermal 4.56 mg/kg bw/day (Systemic, Chronic) Inhalation 16.1 mg/m³ (Systemic, Chronic) *Dermal 2.29 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 3.97 mg/m³ (Systemic, Chronic) ** *Oral 2.29 mg/kg bw/day (Systemic, Chronic) **	50.55 µg/L (Water (Fresh)) 0.505 mg/L (Water - Intermittent release) 5.055 µg/L (Water (Marine)) 0.854 mg/kg sediment dw (Sediment (Fresh Water)) 0.085 mg/kg sediment dw (Sediment (Marine)) 0.218 mg/kg soil dw (Soil) 80 mg/L (STP)
vanillin	Not Available	0.118 mg/L (Water (Fresh)) 0.012 mg/L (Water (Marine)) 58.22 mg/kg sediment dw (Sediment (Fresh Water)) 5.822 mg/kg sediment dw (Sediment (Marine)) 11.54 mg/kg soil dw (Soil) 10 mg/L (STP)
maltol	Dermal 1.87 mg/kg bw/day (Systemic, Chronic) Inhalation 6.58 mg/m³ (Systemic, Chronic) *Dermal 0.667 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 1.16 mg/m³ (Systemic, Chronic) ** *Oral 0.667 mg/kg bw/day (Systemic, Chronic) **	7.2 µg/L (Water (Fresh)) 72 µg/L (Water - Intermittent release) 0.72 µg/L (Water (Marine)) 81.9 µg/kg sediment dw (Sediment (Fresh Water)) 8.19 µg/kg sediment dw (Sediment (Marine)) 12.2 µg/kg soil dw (Soil) 6.802 mg/L (STP)

* Values for General Population

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
EU Consolidated List of Indicative Occupational Exposure Limit Values (IOELVs)	ethyl acetate	Ethyl acetate	200 ppm / 734 mg/m3	1 468 mg/m3 / 400 ppm	Not Available	Not Available
UK Workplace Exposure Limits (WELs)	ethyl acetate	Ethyl acetate	200 ppm / 734 mg/m3	1468 mg/m3 / 400 ppm	Not Available	Not Available

Emergency Limits

Continued...

Ingredient	TEEL-1	TEEL-2	TEEL-3

Ingredient	TEEL-1	TEEL-2	TEEL-3
3,4-dimethoxybenzaldehyde	6 mg/m3	66 mg/m3	400 mg/m3

Ingredient	Original IDLH	Revised IDLH
caprylic-capric acid triglyceride	Not Available	Not Available
menthol	Not Available	Not Available
cornmint oil	Not Available	Not Available
spearmint oil	Not Available	Not Available
ethyl butyrate	Not Available	Not Available
4-(p-hydroxyphenyl)-2-butanone	Not Available	Not Available
cis-3-hexen-1-ol	Not Available	Not Available
ethyl acetate	2,000 ppm	Not Available
cis-6-nonenal	Not Available	Not Available
cis-6-nonen-1-ol	Not Available	Not Available
p-mentha-3-ol	Not Available	Not Available
peppermint oil	Not Available	Not Available
phenethyl alcohol	Not Available	Not Available
lemon oil	Not Available	Not Available
DL-menthyl acetate	Not Available	Not Available
iso-amyl iso-valerate	Not Available	Not Available
trans-2-hexenal	Not Available	Not Available
orange oil	Not Available	Not Available
mandarin oil	Not Available	Not Available
gamma-nonalactone	Not Available	Not Available
delta-octalactone	Not Available	Not Available
vanillin	Not Available	Not Available
3,4-dimethoxybenzaldehyde	Not Available	Not Available
maltol	Not Available	Not Available

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
menthol	E	≤ 0.01 mg/m³
cornmint oil	E	≤ 0.1 ppm
spearmint oil	E	≤ 0.1 ppm
ethyl butyrate	E	≤ 0.1 ppm
4-(p-hydroxyphenyl)-2-butanone	E	≤ 0.01 mg/m³
cis-6-nonenal	E	≤ 0.1 ppm
cis-6-nonen-1-ol	E	≤ 0.1 ppm
p-mentha-3-ol	E	≤ 0.1 ppm
peppermint oil	E	≤ 0.1 ppm
phenethyl alcohol	E	≤ 0.1 ppm
lemon oil	E	≤ 0.1 ppm
iso-amyl iso-valerate	E	≤ 0.1 ppm
trans-2-hexenal	E	≤ 0.1 ppm
orange oil	E	≤ 0.1 ppm
mandarin oil	E	≤ 0.1 ppm
gamma-nonalactone	E	≤ 0.1 ppm
delta-octalactone	E	≤ 0.1 ppm
vanillin	E	≤ 0.01 mg/m³
3,4-dimethoxybenzaldehyde	E	≤ 0.01 mg/m³
maltol	E	≤ 0.01 mg/m³

Notes: *Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure*

Continued...

8.2. Exposure controls

8.2.1. Appropriate engineering controls	For large scale or continuous use: ‣ Spark-free, earthed ventilation system, venting directly to the outside and separate from usual ventilation systems ‣ Provide dust collectors with explosion vents **Care**: Atmospheres in bulk storages and even apparently empty tanks may be hazardous by oxygen depletion. Atmosphere must be checked before entry. Requirements of State Authorities concerning conditions for tank entry must be met. Particularly with regard to training of crews for tank entry; work permits; sampling of atmosphere; provision of rescue harness and protective gear as needed Enclosed local exhaust ventilation is required at points of dust, fume or vapour generation. HEPA terminated local exhaust ventilation should be considered at point of generation of dust, fumes or vapours.
8.2.2. Individual protection measures, such as personal protective equipment	
Eye and face protection	When handling very small quantities of the material eye protection may not be required. For laboratory, larger scale or bulk handling or where regular exposure in an occupational setting occurs: Chemical goggles.
Skin protection	See Hand protection below
Hands/feet protection	**NOTE:** ‣ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. For esters: ‣ Do NOT use natural rubber, butyl rubber, EPDM or polystyrene-containing materials. The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. ‣ Rubber gloves (nitrile or low-protein, powder-free latex, latex/ nitrile). Employees allergic to latex gloves should use nitrile gloves in preference. ‣ Wear physical protective gloves, e.g. leather. ‣ Wear safety footwear.
Body protection	See Other protection below
Other protection	‣ For quantities up to 500 grams a laboratory coat may be suitable. ‣ For quantities up to 1 kilogram a disposable laboratory coat or coverall of low permeability is recommended. ‣ Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity. ‣ For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets).

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:
"Forsberg Clothing Performance Index".
The effect(s) of the following substance(s) are taken into account in the ***computer-generated*** selection:
Flavor pen

Material	CPI
PE/EVAL/PE	A
PVA	A
SARANEX-23 2-PLY	A
BUTYL	B
TEFLON	B
VITON/CHLOROBUTYL	B
BUTYL/NEOPRENE	C
CPE	C
HYPALON	C
NATURAL RUBBER	C
NATURAL+NEOPRENE	C
NEOPRENE	C
NEOPRENE/NATURAL	C
NITRILE	C
NITRILE+PVC	C
PVC	C

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	A P1 Air-line*	- -	A PAPR-P1 -
up to 50 x ES	Air-line**	A P2	A PAPR-P2
up to 100 x ES	-	A P3	-
		Air-line*	-
100+ x ES	-	Air-line**	A PAPR-P3

* - Negative pressure demand ** - Continuous flow
A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

·Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.
·The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure - ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).

Continued...

·Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be

* CPI - Chemwatch Performance Index
A: Best Selection
B: Satisfactory; may degrade after 4 hours continuous immersion
C: Poor to Dangerous Choice for other than short term immersion
NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -
* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

·Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.
·Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)
·Use approved positive flow mask if significant quantities of dust becomes airborne.
·Try to avoid creating dust conditions.
Class P2 particulate filters are used for protection against mechanically and thermally generated particulates or both.
P2 is a respiratory filter rating under various international standards, Filters at least 94% of airborne particles
Suitable for:
·Relatively small particles generated by mechanical processes eg. grinding, cutting, sanding, drilling, sawing.
·Sub-micron thermally generated particles e.g. welding fumes, fertilizer and bushfire smoke.
·Biologically active airborne particles under specified infection control applications e.g. viruses, bacteria, COVID-19, SARS

8.2.3. Environmental exposure controls

See section 12

SECTION 9 Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Not Available

Physical state	Solid	**Relative density (Water = 1)**	Not Available
Odour	Not Available	**Partition coefficient n-octanol / water**	Not Available
Odour threshold	Not Available	**Auto-ignition temperature (°C)**	Not Available
pH (as supplied)	Not Available	**Decomposition temperature (°C)**	Not Available
Melting point / freezing point (°C)	Not Available	**Viscosity (cSt)**	Not Available
Initial boiling point and boiling range (°C)	Not Available	**Molecular weight (g/mol)**	Not Available
Flash point (°C)	Not Available	**Taste**	Not Available
Evaporation rate	Not Available	**Explosive properties**	Not Available
Flammability	Not Available	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	Not Available	**Surface Tension (dyn/cm or mN/m)**	Not Applicable
Lower Explosive Limit (%)	Not Available	**Volatile Component (%vol)**	Not Available
Vapour pressure (kPa)	Not Available	**Gas group**	Not Available
Solubility in water	Not Available	**pH as a solution (1%)**	Not Available
Vapour density (Air = 1)	Not Available	**VOC g/L**	Not Available
Nanoform Solubility	Not Available	**Nanoform Particle Characteristics**	Not Available
Particle Size	Not Available		

9.2. Other information

Not Available

SECTION 10 Stability and reactivity

10.1. Reactivity	See section 7.2
10.2. Chemical stability	▸ Unstable in the presence of incompatible materials. ▸ Product is considered stable.

Continued...

10.3. Possibility of hazardous reactions	See section 7.2
10.4. Conditions to avoid	See section 7.2
10.5. Incompatible materials	See section 7.2
10.6. Hazardous decomposition products	See section 5.3

SECTION 11 Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Inhaled	The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. The main effects of simple esters are irritation, stupor and insensibility. Headache, drowsiness, dizziness, coma and behavioural changes may occur. Exposure to 400ppm ethyl acetate may cause mild eye, nose and throat irritation in an unacclimated persons. However, production workers with regular exposure have better tolerance. Inhalation of essential oil volatiles may cause dizziness, rapid, shallow breathing, increased heart rate, respiratory irritation, loss of consciousness or convulsions. Urination may stop, and there may be swelling and inflammation of the lungs.
Ingestion	Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733) Accidental ingestion of the material may be damaging to the health of the individual. Acute intoxication by ethyl acetate causes impaired co-ordination, exhilaration, slurred speech, nausea, vomiting, and may progress to stupor, coma and death from failure of breathing or blood circulation. Essential oils cause mild irritation of the mouth if taken orally, causing more saliva to be produced and a warm feeling. Large amounts affect the digestive system causing nausea, vomiting and diarrhoea. Terpenes and their oxygen-containing counterparts, the terpenoids, produce a variety of effects. Pine oil monoterpenes, for example, produce stomach inflammation with bleeding, characterised by stomach pain and vomiting.
Skin Contact	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. Following contact with plants that produce furocoumarins and direct sunlight, a severe, painful reaction can occur, with blisters. This reaction occurs 6 to 24 hours following exposure. Essential oils irritate the skin and redden it, causing at first warmth and smarting, followed by some local loss of sensation. They have been used to treat chronic inflammatory conditions and to relieve neuralgia and rheumatic pain. Older pine oils will likely cause skin irritation. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	This material can cause eye irritation and damage in some persons.
Chronic	Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. At least one phototoxic furocoumarin (8-methoxypsoralen) has been shown to markedly enhance experimental UV carcinogenesis. Enhanced skin cancer formation has been described in humans undergoing treatment with psoralens and UV-A for psoriasis. A number of common flavor and fragrance chemicals can form peroxides surprisingly fast in air. Antioxidants can in most cases minimize the oxidation. Some oxidized terpenoids and some aged essential oils, have skin-sensitising abilities, leading to a hypersensitivity reaction similar to allergic contact dermatitis. This is mostly due to the properties of their auto-oxidation products. Essential oils and isolates derived from the Pinacea family, including the genera Pinus and Abies, should only be used when the level of peroxides is kept to the lowest practicable level (less than 10 millimoles per litre). There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment. d-Limonene may cause damage to and growths in the kidney. These growths can progress to cancer.

Flavor pen	**TOXICITY**	**IRRITATION**
	Not Available	Not Available
caprylic-capric acid triglyceride	**TOXICITY**	**IRRITATION**
	Oral (Mouse) LD50; >23500 mg/kg[2]	Not Available
menthol	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: >5000 mg/kg[1]	Eye (rabbit): 0.75 mg - SEVERE

Continued ...

	Oral (Cat) LD50; 800 mg/kg[2]	Eye: slight *
		Skin: adverse effect observed (irritating)[1]
		Skin: irritant *

cornmint oil	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: >5000 mg/kg[2]	Not Available
	Oral (Rat) LD50: 1240 mg/kg[2]	

spearmint oil	**TOXICITY**	**IRRITATION**
	Oral (Rat) LD50: 5000 mg/kg[2]	Skin (rabbit): 500 mg/24h - mod

ethyl butyrate	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: >2000 mg/kg[1]	Eye: no adverse effect observed (not irritating)[1]
	Inhalation(Rat) LC50: >1.845 mg/L4h[1]	Skin: no adverse effect observed (not irritating)[1]
	Oral (Rat) LD50: >2000 mg/kg[1]	

4-(p-hydroxyphenyl)-2-butanone	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: >2000 mg/kg[1]	Not Available
	Oral (Rat) LD50: 1320 mg/kg[2]	

cis-3-hexen-1-ol	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: >5000 mg/kg[2]	Eye: adverse effect observed (irritating)[1]
	Inhalation(Rat) LC50: >4.99 mg/l4h[1]	Skin: no adverse effect observed (not irritating)[1]
	Oral (Rat) LD50: 4700 mg/kg[2]	

ethyl acetate	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: >18000 mg/kg[2]	Eye (human): 400 ppm
	Inhalation(Mouse) LC50; >18 mg/l4h[1]	Eye: no adverse effect observed (not irritating)[1]
	Oral (Mouse) LD50; 4100 mg/kg[2]	Skin: no adverse effect observed (not irritating)[1]

cis-6-nonenal	**TOXICITY**	**IRRITATION**
	dermal (guinea pig) LD50: >5000 mg/kg[2]	Not Available
	Oral (Mouse) LD50; >5000 mg/kg[2]	

cis-6-nonen-1-ol	**TOXICITY**	**IRRITATION**
	Not Available	Skin : Mild

p-mentha-3-ol	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: >5000 mg/kg[2]	Not Available
	Inhalation (Rat)TCLo: 16 mg/m3/4h[2]	
	Intraperitoneal (Cat) LD50: 800 mg/kg[2]	
	Intraperitoneal (Cat) LDLo: 1500 mg/kg[2]	
	Intraperitoneal (Guinea pig) LD50: 4000 mg/kg[2]	
	Intraperitoneal (Guinea pig) LD50: 865 mg/kg[2]	
	Intraperitoneal (Guinea pig) LDLo: 4000 mg/kg[2]	
	Intraperitoneal (Mouse) LD50: 14200 mg/kg[2]	
	Intraperitoneal (Mouse) LD50: 2000 mg/kg[2]	
	Intraperitoneal (Mouse) LD50: 6600 mg/kg[2]	
	Intraperitoneal (Mouse) LDLo: 1800 mg/kg[2]	
	Intraperitoneal (Rabbit) LD50: 2000 mg/kg[2]	
	Intraperitoneal (Rabbit) LDLo: 2000 mg/kg[2]	
	Intraperitoneal (Rat) LD50: 1500 mg/kg[2]	
	Intraperitoneal (Rat) LD50: 670 mg/kg[2]	
	Intraperitoneal (Rat) LD50: 700 mg/kg[2]	
	Intraperitoneal (Rat) LDLo: 1500 mg/kg[2]	
	Intravenous (Cat) LD50: 34 mg/kg[2]	

Continued...

	Intravenous (Cat) LDLo: 37 mg/kg[2]	
	Oral (Cat) LD50: 800 mg/kg[2]	
	Oral (Cat) LD50: 900 mg/kg[2]	
	Oral (Cat) LDLo: 1500 mg/kg[2]	
	Oral (Mouse) LD50; 2750 mg/kg[2]	
	Oral (Mouse) LD50; 3100 mg/kg[2]	
	Oral (Mouse) LD50; 3400 mg/kg[2]	
	Oral (Rat) LD50: 3180 mg/kg[2]	
	Oral (Rat) LD50: 3300 mg/kg[2]	
	Oral (Rat) LD50: 940 mg/kg[2]	
	Subcutaneous (Mouse) LD50: 5000 mg/kg[2]	
	Subcutaneous (Mouse) LD50: 5500 mg/kg[2]	
	Subcutaneous (Mouse) LDLo: 14000 mg/kg[2]	
	Subcutaneous (Rat) LD50: 1000 mg/kg[2]	
	Subcutaneous (Rat) LD50: 1750 mg/kg[2]	
	Subcutaneous (Rat) LDLo: 1000 mg/kg[2]	
peppermint oil	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: >5000 mg/kg[2]	Not Available
	Oral (Rat) LD50: 2426 mg/kg[2]	
phenethyl alcohol	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: 790 mg/kg[2]	Eye (rabbit): 0.75 mg/24h SEVERE
	Inhalation(Rat) LC50: >4.63 mg/l4h[1]	Eye (rabbit): 12000 mg/10m mild
	Oral (Rat) LD50: 1603.3 mg/kg[1]	Eye: adverse effect observed (irritating)[1]
		Skin (rabbit): 100 mg/24h moderate
		Skin: no adverse effect observed (not irritating)[1]
lemon oil	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: >5000 mg/kg[2]	Skin (rabbit): 500 mg/24h mod
	Oral (Rat) LD50: 2840 mg/kg[2]	
DL-menthyl acetate	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: >5000 mg/kg[2]	Skin (rabbit): 500 mg/24h - mild
	Oral (Rat) LD50: 7620 mg/kg[2]	
iso-amyl iso-valerate	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: >2000 mg/kg[1]	Eye: no adverse effect observed (not irritating)[1]
	Oral (Rat) LD50: >5000 mg/kg[1]	Skin (rabbit): 400 mg/24h mod
		Skin: no adverse effect observed (not irritating)[1]
trans-2-hexenal	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: 600 mg/kg[2]	Skin: adverse effect observed (irritating)[1]
	Oral (Mouse) LD50; 685 mg/kg[2]	
orange oil	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: >5000 mg/kg[2]	Eye: no adverse effect observed (not irritating)[1]
	Oral (Rat) LD50: >5000 mg/kg[2]	Skin (rabbit): 500mg/24h moderate
		Skin: no adverse effect observed (not irritating)[1]
mandarin oil	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: >500 mg/kg[2]	Skin (rabbit): 500 mg
	Oral (Rat) LD50: >5000 mg/kg[2]	
gamma-nonalactone	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: >5000 mg/kg[2]	Skin (rabbit): 100 mg/24h-SEVERE

Continued ...

delta-octalactone	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: >5000 mg/kg[2]	Not Available
	Oral (Rat) LD50: >2000 mg/kg[1]	
vanillin	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: >2000 mg/kg[1]	Not Available
	Inhalation(Rat) LC50: >0.042 mg/L4h[1]	
	Oral (Guinea) LD50; 1400 mg/kg[2]	
3,4-dimethoxybenzaldehyde	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: >5000 mg/kg[2]	Eye: no adverse effect observed (not irritating)[1]
	Oral (Rat) LD50: 2000 mg/kg[2]	Skin (rabbit): 500 mg/24h
		Skin: no adverse effect observed (not irritating)[1]
maltol	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: >2000 mg/kg[1]	Eye : Mild
	Oral (Mouse) LD50; 550 mg/kg[2]	Eye: no adverse effect observed (not irritating)[1]
		Skin (rabbit): 500 mg/24h moderate
		Skin: no adverse effect observed (not irritating)[1]
Legend:	*1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances*	

Flavor pen	Generally,linear and branched-chain alkyl esters are hydrolysed to their component alcohols and carboxylic acids in the intestinal tract, blood and most tissues throughout the body. Following hydrolysis the component alcohols and carboxylic acids are metabolized Oral acute toxicity studies have been reported for 51 of the 67 esters of aliphatic acyclic primary alcohols and aliphatic linear saturated carboxylic acids.
CAPRYLIC-CAPRIC ACID TRIGLYCERIDE	EYE EFFECTS: Human Mucous Membranes (undiluted samples) = No eye irritation SKIN EFFECTS: Draize Skin Test = No or slight irritation potential. Buehler Sensitization = No reaction. Human Skin Patch Tests (undiluted samples) = No perceptible skin irritation. * Abitec MSDS Miglyol 812, a mixture of medium-chain triglycerides, has been identified as an oral vehicle that could improve the solubility and possibly the bioavailability of orally administered drugs during the non-clinical safety assessment. The toxicity of Miglyol was assessed in Göttingen minipigs upon daily oral administration (gavage) for six weeks, at dosing-volumes of 0.5 and 2 mL/kg/day, compared to controls receiving 0.5% carboxymethyl cellulose/0.1% Tween) 80 in water at 2 mL/kg/day. For group E aliphatic esters (polyol esters): The polyol esters, including trimethylolpropane (TMP). Pentaerythritol (PE) and dipentaerythritol (diPE) are unique in their chemical characteristics since they lack beta-tertiary hydrogen atoms, thus leading to stability against oxidation and elimination. For triglycerides: Carboxylic acid esters will undergo enzymatic hydrolysis by ubiquitously expressed GI esterases. The rate of hydrolysis is dependant on the structure of the ester, and may therefore be rapid or rather slow. For aliphatic fatty acids (and salts) Acute oral (gavage) toxicity: The acute oral LD50 values in rats for both were greater than >2000 mg/kg bw Clinical signs were generally associated with poor condition following administration of high doses (salivation, diarrhoea, staining, piloerection and lethargy).There were no adverse effects on body weight in any study In some studies, excess test substance and/or irritation in the gastrointestinal tract was observed at necropsy. Skin and eye irritation potential, with a few stated exceptions, is chain length dependent and decreases with increasing chain length According to several OECD test regimes the animal skin irritation studies indicate that the C6-10 aliphatic acids are severely irritating or corrosive, while the C12 aliphatic acid is irritating, and the C14-22 aliphatic acids generally are not irritating or mildly irritating. Human skin irritation studies using more realistic exposures (30-minute,1-hour or 24-hours) indicate that the aliphatic acids have sufficient, good or very good skin compatibility. Animal eye irritation studies indicate that among the aliphatic acids, the C8-12 aliphatic acids are irritating to the eye while the C14-22 aliphatic acids are not irritating.
MENTHOL	Bacterial mutagenicity (Ames) test: negative * No evidence of carcinogenic, mutagenic or teratogenic effects After inhalation ; mucosal irritation After swallowing: gastric spasms, nausea, vomiting Systemic effects: dizziness, ataxia (impaired locomotor coordination), tiredness, depressed respiration. Risk of methaemoglobin formation. *Merck MSDS
SPEARMINT OIL	Carvone substances have been reported to occur naturally in foods, including fruits, spices, and berries. Currently there are no safety concerns for any of the carvones based on current levels of intake.
4-(P-HYDROXYPHENYL)-2-BUTANONE	Altered sleep time, analgesia recorded. The clinical impact of the fibrate and thiazolidinedione drugs on dyslipidemia and diabetes is driven mainly through activation of two transcription factors, peroxisome proliferator-activated receptors (PPAR)-alpha and PPAR-gamma.

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CIS-6-NONENAL	Skin (guinea pig): 100%, 24h - mild
CIS-6-NONEN-1-OL	Precautions for handling reactive unsaturated aldehydes should be the same as for those of highly active eye and pulmonary irritants such as phosgene. Sufficient engineering controls, with monitoring where possible, are of importance.
PEPPERMINT OIL	Oral (rat) TDLo: 9000 mg/kg/90D-I *[Givaudan] Ataxia, respiratory depression and convulsions recorded. Bacterial mutagen. The toxicity studies of the plant have received controversial results. Some authors reported that the plant may induce hepatic diseases (liver disease), while others found that it is of protective functions against the liver damages which are caused by heavy metal inductions.
PHENETHYL ALCOHOL	Mutation mouse ascites tumour Unlike benzylic alcohols, the beta-hydroxyl group of the members of benzyl alkyl alcohols contributes to break down reactions but do not undergo phase II metabolic activation. Though structurally similar to cancer causing ethyl benzene, phenethyl alcohol is only of negligible concern due to limited similarity in their pattern of activity. This is a member or analogue of a group of phenethyl, aldehyde, acid and related acetals generally regarded as safe (GRAS), intended for use as flavouring ingredients, based partly on their self-limiting properties as flavouring substances in food. In humans and other animals, they are rapidly absorbed, broken down and excreted, with a wide safety margin. The aryl alkyl alcohol (AAA) fragrance ingredients have diverse chemical structures, with similar metabolic and toxicity profiles. The AAA fragrances demonstrate low acute and subchronic toxicity by skin contact and swallowing.
LEMON OIL	Monomethyltin chloride, thioglycolate esters, and tall oil ester reaction product: Monomethyltin trichloride (MMTC, CAS RN: 993-16-8), monomethyltin tris[2-ethylhexylmercaptoacetate (MMT (EHTG; MMT (2-EHMA), CAS RN: 57583-34-3), monomethyltin tris[isooctylmercaptoacetate (MMT(IOTG), CAS RN: 54849-38-6) and methyltin reverse ester tallate reaction product (TERP, CAS RNs: 201687-58-3, 201687-57-2, 68442-12-6, 151436-98-5) are considered one category of compounds for mammalian studies via the oral route. The justification for this category is based on structural similarities and the demonstrated rapid conversion of all of the esters to the MMTC when placed in simulated mammalian gastric contents [0.07M HCl] under physiological conditions. Bicyclic terpenes are very low in acute toxicity. However, repeated dosing may have deleterious effects on the liver and kidney.
TRANS-2-HEXENAL	Lachrymation, somnolence, vascular dilation, dyspnea, gastrointestinal changes recorded. A member or analogue of a group of aliphatic, linear alpha,beta-unsaturated aldehydes and structurally related substances These substances are generally regarded as safe. They are found in flavouring substances in food and are rapidly absorbed and broken down in the body. Alpha,beta-unsaturated aldehydes and ketones are potentially genotoxic. It is believed that nucleophilic sites in DNA react through a 1,4-nucleophilic addition (Michael reaction) with alpha,beta-unsaturated carbonyl compounds. The flavour industry provided genotoxicity studies for the substance 4,5-epoxydec-2(trans)-enal. Based on these data, a European Food Safety Authority (EFSA Panel concluded that 4,5-epoxydec-2(trans)-enal did not induce gene mutations in bacterial cells but was positive in an in vitro micronucleus assay, so, 4,5-epoxydec-2(trans)-enal is considered an in vitro genotoxic agent. Acrolein irritates the airway and causes a slowing in breathing. Animal testing shows that very high levels can cause congestion and obstruction of the airways, fluid accumulation and bleeding in the lungs, resulting in death; in animal testing, acrolein also caused irritation of the gastrointestinal tract; with ulceration of the forestomach.
MANDARIN OIL	Inhalational exposure of mice and man to linalool caused slight sedative effects but a dose dependent response characteristic could not be determined. It may irritate the digestive tract, skin, nose and the eyes but is not considered to be a sensitiser. For terpenoid tertiary alcohols and their related esters: These substances are metabolised in the liver and excreted primarily in the urine and faeces. A portion is also excreted unchanged.
GAMMA-NONALACTONE	10% in petrolatum produced no irritation or sensitization in humans. * * Bedoukian MSDS Gamma-butyrolactone may cause thymus atrophy, brain damage, severe weakness and low body weight in rats. It causes no foetal development defects but may decrease testicular weight in the male rat. The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration.
VANILLIN	Miosis, somnolence, muscle weakness, coma, respiratory stimulation, maternal effects involving ovaries, fallopian tubes, uterus, cervix and vagina recorded. For certain benzyl derivatives: The members of this group are rapidly absorbed through the gastrointestinal tract, metabolised primarily in the liver, and excreted primarily in the urine either unchanged or as conjugates of benzoic acid derivatives. At high dose levels, gut micro-organisms may act to produce minor amounts of breakdown products. For vanillin: Vanillin generally does not cause irritation or sensitisation of the skin but sometimes does cause inflammation. It causes positive reactions to people already sensitised to Balsam of Peru, and is considered a secondary allergen.
3,4-DIMETHOXYBENZALDEHYDE	The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.
MALTOL	Oral (rat) TDLo: 90000 mg/kg/90d-I Maltol at 10% in petroleum produced no sensitisation reactions in a maximisation test. * There were no compound-related effects in a three generation reproduction in the rat.* FAO/ WHO evaluated that the level causing no toxicological effect is 100 mg/kgbw in rat* FAO/WHO estimated in 1974 that acceptable daily intake (ADI) for man is 1mg/kg bw. 7) The Council of Europe (1974) listed Maltol, giving an ADI of 1 mg/kg 6)* Beijing TianLiHai Chemical Company Co. Ltd MSDS A member or analogue of EFSA Chemical Group 10 secondary aliphatic saturated or unsaturated alcohols, ketones, ketals and esters with a secondary or tertiary oxygenated functional group used as flavourings No safety concern would arise for the consumer from the use of these compounds up to the highest proposed level in

Continued...

	application. Most are classified as irritating to the respiratory system. Aliphatic acyclic and alicyclic alpha-diketones and alpha-hydroxyketones are generally used as flavouring agents up to average maximum levels of 200 ppm. In rats and mice, orally administered aliphatic alpha-diketones are rapidly absorbed from the gastrointestinal tract.
Flavor pen & MENTHOL & CORNMINT OIL & SPEARMINT OIL & PEPPERMINT OIL & PHENETHYL ALCOHOL & LEMON OIL & DL-menthyl acetate & TRANS-2-HEXENAL & ORANGE OIL & MANDARIN OIL & VANILLIN	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema.
Flavor pen & MANDARIN OIL	Epoxidation of double bonds is a common bioactivation pathway for alkenes. The allylic epoxides formed were found to be sensitizing.
Flavor pen & MENTHOL & CORNMINT OIL & SPEARMINT OIL & PEPPERMINT OIL & PHENETHYL ALCOHOL & LEMON OIL & DL-menthyl acetate & MANDARIN OIL & VANILLIN	Adverse reactions to fragrances in perfumes and fragranced cosmetic products include allergic contact dermatitis, irritant contact dermatitis, sensitivity to light, immediate contact reactions, and pigmented contact dermatitis. Airborne and connubial contact dermatitis occurs.
Flavor pen & CORNMINT OIL & PHENETHYL ALCOHOL & VANILLIN	Fragrance allergens act as haptens, low molecular weight chemicals that cause an immune response only when attached to a carrier protein. However, not all sensitizing fragrance chemicals are directly reactive, but require previous activation.
Flavor pen & SPEARMINT OIL & PEPPERMINT OIL & LEMON OIL & ORANGE OIL & MANDARIN OIL	d-Limonene is readily absorbed by inhalation and swallowing. Absorption through the skin is reported to the lower than by inhalation.
MENTHOL & CORNMINT OIL & ETHYL BUTYRATE & ETHYL ACETATE & CIS-6-NONENAL & p-mentha-3-ol & PEPPERMINT OIL & PHENETHYL ALCOHOL & LEMON OIL & ISO-AMYL ISO-VALERATE & TRANS-2-HEXENAL & 3,4-DIMETHOXYBENZALDEHYDE & MALTOL	Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound.
MENTHOL & SPEARMINT OIL & PEPPERMINT OIL & LEMON OIL & DL-menthyl acetate & MANDARIN OIL	Fragrance allergens act as haptens, which are small molecules that cause an immune reaction only when attached to a carrier protein. However, not all sensitizing fragrance chemicals are directly reactive, but some require previous activation.
MENTHOL & p-mentha-3-ol & DL-menthyl acetate	A member or analogue of a group of aliphatic and alicyclic terpenoid tertiary alcohols and structurally related substances generally regarded as safe. Most alicyclic substances used as flavour ingredients are mono- and bicyclic terpenes which occur naturally in a wide variety of foods.
MENTHOL & p-mentha-3-ol	With few exceptions* (see below), there are no safety concerns regarding certain cyclic and non-cyclic terpene alcohols **, as fragrance ingredients, under present declared levels of use and exposure, because - They have low acute toxicity - No significant toxicity was observed in repeat dose toxicity tests - They were not found to cause mutations or genetic toxicity - Substances in this group are processed similarly in the body - There is no indication of persistent breakdown products causing severe toxicity - They practically do not irritate the skin - They have a generally low potential for sensitization - The margin of safety is more than 100 times the maximum daily exposure. *Safety concerns exist for the following substances for the following reasons: - 6,7-dihydrogeraniol, hydroabietyl alcohol and 2-isopropyl-2-decahydronapthalenol are potent skin sensitisers. - Farnesol is a weak sensitizer. - Scalerol and linalool may contain impurities and/or oxidation products that are strong sensitisers. - No sensitization test results were available for 2(10)-pinen-3-ol, 2,6-dimethyloct-3,5-dien-2-ol, and 3,7-dimethyl-4,6-octadien-3-ol. These materials should be regarded as potential sensitizers until tested. ** The common characteristic structural element of acyclic -noncyclic- and cyclic terpene alcohols is the typically branched isoprene unit 2-methyl-1,3-butadiene
MENTHOL & CORNMINT OIL	For kappa-opioid agonists: Kappa-opioid receptors are widely distributed in the brain, spinal cord and in pain neurons. Kappa-opioid receptor agonists produce unpleasant moods such as sadness, but their effects have been shown to vary between sexes. The receptors are thought to play a major role in mediating addiction and its remission, as well as the hallucinogenic side effects of opioids such as pentazocine. It is now widely accepted that kappa-opioid partial agonists block signals to the conscious mind from other parts of the brain and cause stupor and confusion.

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CORNMINT OIL & PEPPERMINT OIL	The mechanisms by which pulegone and its proximate hepatotoxicant, menthofuran exert toxic effects have been studied extensively both in vitro and in vivo, presumably because of the use and abuse of pennyroyal oil. Pulegone has been shown to be the active constituent of pennyroyal oil, and menthofuran produced the same toxic effects as pulegone after intraperitoneal injection to mice.
SPEARMINT OIL & ORANGE OIL	The terpenoid hydrocarbons are found in needle trees and deciduous plants. This category of chemicals shows very low acute toxicity.
SPEARMINT OIL & CIS-6-NONEN-1-OL & PEPPERMINT OIL & LEMON OIL & ORANGE OIL & MANDARIN OIL	No significant acute toxicological data identified in literature search.
SPEARMINT OIL & PEPPERMINT OIL & LEMON OIL & DL-menthyl acetate	Cross-reactivity is also expected between ester derivatives and their parent alcohols, as the esters will be broken down by esterases in the skin. Esters of important contact allergens that can be activated by hydrolysis in the skin are isoeugenol acetate, eugenyl acetate and geranyl acetate all of which are known to be used as fragrance ingredients.
ETHYL BUTYRATE & PEPPERMINT OIL & PHENETHYL ALCOHOL & LEMON OIL & ISO-AMYL ISO-VALERATE & TRANS-2-HEXENAL & MANDARIN OIL & 3,4-DIMETHOXYBENZALDEHYDE & MALTOL	The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.
LEMON OIL & ORANGE OIL & MANDARIN OIL	The essential oils, oleoresins (solvent-free), and natural extractives (including distillates) derived from citrus fruits are generally recognized as safe (GRAS) for their intended use in foods for human consumption. Botanicals such as citrus are comprised of hundreds of ingredients, some of which have the potential to cause toxic effects; for example, bergapten (5-methoxypsoralen; 5-MOP) is a naturally occurring furocoumarin (psoralen) in bergamot oil that causes light-mediated toxicity. Acute toxicity: Animal testing shows that the acute toxicity of these substances is generally low via skin contact. Skin irritation: In animal testing, undiluted citrus essential oils caused varying degrees of irritation. In humans, no irritation was observed after applying a variety of these oils to skin. Eye irritation: There appeared to be no significant eye irritation in testing with these substances. Sensitisation: Testing in humans have shown that these substances generally do not cause sensitisation.
GAMMA-NONALACTONE & DELTA-OCTALACTONE	This is a member or analogue of a group of lactones generally considered as safe (GRAS). Aliphatic lactones occur naturally at high concentrations (up to 100 parts per million) in food having a high fat content such as meat, cheese, milk and coconuts.
VANILLIN & 3,4-DIMETHOXYBENZALDEHYDE	A member or analogue of a group of hydroxy and alkoxy-substituted benzyl derivatives generally regarded as safe (GRAS) based in part on their self-limiting properties as flavouring substances in food; their rapid absorption. metabolic detoxification, and excretion in humans and other animals, their low level of flavour use, the wide margin of safety between the conservative estimates of intake and the no-observed-adverse effect levels determined from chronic and subchronic studies and the lack of significant genotoxic and mutagenic potential.

Acute Toxicity	✗	**Carcinogenicity**	✗
Skin Irritation/Corrosion	✓	**Reproductivity**	✗
Serious Eye Damage/Irritation	✓	**STOT - Single Exposure**	✗
Respiratory or Skin sensitisation	✓	**STOT - Repeated Exposure**	✗
Mutagenicity	✗	**Aspiration Hazard**	✓

Legend: ✗ *– Data either not available or does not fill the criteria for classification*
✓ *– Data available to make classification*

11.2 Information on other hazards

11.2.1. Endocrine disrupting properties

No evidence of endocrine disrupting properties were found in the current literature.

11.2.2. Other information

See Section 11.1

SECTION 12 Ecological information

12.1. Toxicity

	Endpoint	Test Duration (hr)	Species	Value	Source
Flavor pen	Not Available	Not Available	Not Available	Not Available	Not Available

	Endpoint	Test Duration (hr)	Species	Value	Continued Source
caprylic-capric acid					

	EC50	48h	Crustacea	>2.2mg/l	Not Available
	EC50	96h	Algae or other aquatic plants	50mg/l	1
	LC50	96h	Fish	>53mg/l	Not Available
	EC50(ECx)	48h	Crustacea	>2.2mg/l	Not Available

menthol	**Endpoint**	**Test Duration (hr)**	**Species**	**Value**	**Source**
	EC50	72h	Algae or other aquatic plants	0.33mg/l	2
	EC50	48h	Crustacea	26.6mg/l	2
	NOEC(ECx)	72h	Algae or other aquatic plants	0.089mg/l	2
	LC50	96h	Fish	418.9mg/l	Not Available

cornmint oil	**Endpoint**	**Test Duration (hr)**	**Species**	**Value**	**Source**
	Not Available	Not Available	Not Available	Not Available	Not Available

spearmint oil	**Endpoint**	**Test Duration (hr)**	**Species**	**Value**	**Source**
	Not Available	Not Available	Not Available	Not Available	Not Available

ethyl butyrate	**Endpoint**	**Test Duration (hr)**	**Species**	**Value**	**Source**
	EC50	48h	Crustacea	>100mg/l	2
	LC50	96h	Fish	>=100mg/l	2
	NOEC(ECx)	672h	Fish	1.483mg/l	2

4-(p-hydroxyphenyl)-2-butanone	**Endpoint**	**Test Duration (hr)**	**Species**	**Value**	**Source**
	LC50	96h	Fish	75.746mg/l	2
	EC50	48h	Crustacea	<100mg/l	2
	EC50	96h	Algae or other aquatic plants	101.054mg/l	2
	EC50(ECx)	48h	Crustacea	<100mg/l	2

cis-3-hexen-1-ol	**Endpoint**	**Test Duration (hr)**	**Species**	**Value**	**Source**
	EC50	72h	Algae or other aquatic plants	>76mg/l	2
	EC50	48h	Crustacea	>100mg/l	2
	NOEC(ECx)	72h	Algae or other aquatic plants	76mg/l	2
	LC50	96h	Fish	>100mg/l	2

ethyl acetate	**Endpoint**	**Test Duration (hr)**	**Species**	**Value**	**Source**
	EC50	72h	Algae or other aquatic plants	1800-3200mg/l	4
	EC50	48h	Crustacea	164mg/l	1
	EC50	96h	Algae or other aquatic plants	2500mg/l	4
	LC50	96h	Fish	>75.6mg/l	2
	NOEC(ECx)	72h	Algae or other aquatic plants	>100mg/l	1

cis-6-nonenal	**Endpoint**	**Test Duration (hr)**	**Species**	**Value**	**Source**
	EC50	72h	Algae or other aquatic plants	0.5mg/l	2
	EC50	48h	Crustacea	9.06mg/l	2
	EC50(ECx)	72h	Algae or other aquatic plants	0.5mg/l	2

cis-6-nonen-1-ol	**Endpoint**	**Test Duration (hr)**	**Species**	**Value**	**Source**
	Not Available	Not Available	Not Available	Not Available	Not Available

p-mentha-3-ol	**Endpoint**	**Test Duration (hr)**	**Species**	**Value**	**Source**
	BCF	1008 h	Fish	<0.5-15	7
	EC50	72h	Algae or other aquatic plants	16.013mg/l	2
	EC50	48h	Crustacea	26.6mg/l	2

Continued...

	EC0(ECx)	24h	Crustacea	15.7mg/l	1

peppermint oil

Endpoint	Test Duration (hr)	Species	Value	Source
EC50	48h	Crustacea	2.7mg/l	2
EC50	96h	Algae or other aquatic plants	2.61mg/l	2
EC50(ECx)	96h	Algae or other aquatic plants	2.61mg/l	2
LC50	96h	Fish	3.4mg/l	2
EC50	48h	Crustacea	2.43mg/l	2
EC50	96h	Algae or other aquatic plants	2.63mg/l	2
EC50(ECx)	48h	Crustacea	2.43mg/l	2
LC50	96h	Fish	3.01mg/l	2

phenethyl alcohol

Endpoint	Test Duration (hr)	Species	Value	Source
EC50	72h	Algae or other aquatic plants	490mg/l	1
EC50	48h	Crustacea	287.17mg/l	1
LC50	96h	Fish	>215<464mg/l	2
NOEC(ECx)	96h	Fish	100mg/l	1

lemon oil

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

DL-menthyl acetate

Endpoint	Test Duration (hr)	Species	Value	Source
EC50	72h	Algae or other aquatic plants	0.71mg/l	2
EC50	48h	Crustacea	9.1mg/l	2
NOEC(ECx)	72h	Algae or other aquatic plants	0.16mg/l	2
LC50	96h	Fish	6.72mg/l	2

iso-amyl iso-valerate

Endpoint	Test Duration (hr)	Species	Value	Source
EC50	72h	Algae or other aquatic plants	4.75mg/l	2
EC50	48h	Crustacea	6.1mg/l	2
LC50	96h	Fish	3.47mg/l	2
NOEC(ECx)	72h	Algae or other aquatic plants	1.6mg/l	2

trans-2-hexenal

Endpoint	Test Duration (hr)	Species	Value	Source
EC50	72h	Algae or other aquatic plants	8.16mg/l	2
EC10(ECx)	72h	Algae or other aquatic plants	7.71mg/l	2

orange oil

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

mandarin oil

Endpoint	Test Duration (hr)	Species	Value	Source
EC50	72h	Algae or other aquatic plants	0.61mg/l	2
EC50	48h	Crustacea	65.9mg/l	2
NOEC(ECx)	72h	Algae or other aquatic plants	0.14mg/l	2

gamma-nonalactone

Endpoint	Test Duration (hr)	Species	Value	Source
EC50	96h	Algae or other aquatic plants	5mg/l	2
EC50	72h	Algae or other aquatic plants	63.5mg/l	2
EC50	48h	Crustacea	4mg/l	2
LC50	96h	Fish	5.5mg/l	2
NOEC(ECx)	48h	Algae or other aquatic plants	0.779mg/l	2

delta-octalactone

Endpoint	Test Duration (hr)	Species	Value	Source
EC50	72h	Algae or other aquatic plants	20.9mg/l	2
EC50	48h	Crustacea	16.2mg/l	2
NOEC(ECx)	72h	Algae or other aquatic plants	0.5mg/l	2

Continued...

vanillin	**Endpoint**	**Test Duration (hr)**	**Species**	**Value**	**Source**
	EC50	72h	Algae or other aquatic plants	120mg/l	2
	EC50	48h	Crustacea	>10<100mg/l	2
	LC50	96h	Fish	53-61.3mg/l	4
	NOEC(ECx)	72h	Algae or other aquatic plants	>2mg/l	1
3,4-dimethoxybenzaldehyde	**Endpoint**	**Test Duration (hr)**	**Species**	**Value**	**Source**
	EC50	72h	Algae or other aquatic plants	31mg/l	2
	EC50	48h	Crustacea	52mg/l	2
	NOEC(ECx)	72h	Algae or other aquatic plants	1.1mg/l	2
maltol	**Endpoint**	**Test Duration (hr)**	**Species**	**Value**	**Source**
	EC50	72h	Algae or other aquatic plants	7.2mg/l	2
	EC50	48h	Crustacea	27mg/l	2
	LC50	96h	Fish	>100mg/l	2
	NOEC(ECx)	72h	Algae or other aquatic plants	0.77mg/l	2
Legend:	*Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data*				

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.
For vanillin:
log Kow 1.26
Environmental Fate: Vanillin is susceptible to photodegradation in air, is rather stable to hydrolysis in water, but is readily biodegradable under aerobic conditions. Studies show that vanillin is rapidly biodegraded under anaerobic conditions.
For Terpenes such as Limonene and Isoprene:
Atmospheric Fate: Contribute to aerosol and photochemical smog formation. When terpenes are introduced to the atmosphere, may either decrease ozone concentrations when oxides of nitrogen are low or, if emissions take place in polluted air (i.e. containing high concentrations of nitrogen oxides), leads to an increase in ozone concentrations.
Substances containing unsaturated carbons are ubiquitous in indoor environments. They result from many sources (see below).
For Limonenes:
Atmospheric Fate: Due to the high volatility of limonene, the atmosphere is expected to be the major environmental sink for this chemical. The oxidation of limonene may contribute to aerosol and photochemical smog formation.
DO NOT discharge into sewer or waterways.

12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
menthol	HIGH	HIGH
ethyl butyrate	LOW	LOW
4-(p-hydroxyphenyl)-2-butanone	HIGH	HIGH
cis-3-hexen-1-ol	LOW	LOW
ethyl acetate	LOW (Half-life = 14 days)	LOW (Half-life = 14.71 days)
cis-6-nonenal	LOW	LOW
cis-6-nonen-1-ol	LOW	LOW
phenethyl alcohol	LOW	LOW
DL-menthyl acetate	HIGH	HIGH
iso-amyl iso-valerate	LOW	LOW
trans-2-hexenal	LOW	LOW
gamma-nonalactone	LOW	LOW
delta-octalactone	LOW	LOW
vanillin	LOW	LOW
3,4-dimethoxybenzaldehyde	HIGH	HIGH
maltol	LOW	LOW

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation

Continued...

Ingredient	Bioaccumulation
4-(p-hydroxyphenyl)-2-butanone	LOW (LogKOW = 1.4837)
cis-3-hexen-1-ol	LOW (LogKOW = 1.6082)
ethyl acetate	HIGH (BCF = 3300)
cis-6-nonenal	LOW (LogKOW = 3.0568)
cis-6-nonen-1-ol	LOW (LogKOW = 3.0815)
p-mentha-3-ol	LOW (BCF = 15)
phenethyl alcohol	LOW (LogKOW = 1.36)
DL-menthyl acetate	MEDIUM (LogKOW = 4.4225)
iso-amyl iso-valerate	MEDIUM (LogKOW = 3.8108)
trans-2-hexenal	LOW (LogKOW = 1.5835)
gamma-nonalactone	LOW (LogKOW = 2.0761)
delta-octalactone	LOW (LogKOW = 1.585)
vanillin	LOW (LogKOW = 1.21)
3,4-dimethoxybenzaldehyde	LOW (LogKOW = 1.22)
maltol	LOW (LogKOW = 0.09)

12.4. Mobility in soil

Ingredient	Mobility
menthol	LOW (KOC = 66.19)
ethyl butyrate	LOW (KOC = 21.85)
4-(p-hydroxyphenyl)-2-butanone	LOW (KOC = 249.3)
cis-3-hexen-1-ol	LOW (KOC = 8.311)
ethyl acetate	LOW (KOC = 6.131)
cis-6-nonenal	LOW (KOC = 108.8)
cis-6-nonen-1-ol	LOW (KOC = 52.14)
phenethyl alcohol	LOW (KOC = 28.89)
DL-menthyl acetate	LOW (KOC = 531.9)
iso-amyl iso-valerate	LOW (KOC = 177.6)
trans-2-hexenal	LOW (KOC = 17.34)
gamma-nonalactone	LOW (KOC = 140.1)
delta-octalactone	LOW (KOC = 75.95)
vanillin	LOW (KOC = 38.45)
3,4-dimethoxybenzaldehyde	LOW (KOC = 16.9)
maltol	HIGH (KOC = 1)

12.5. Results of PBT and vPvB assessment

	P	B	T
Relevant available data	Not Available	Not Available	Not Available
PBT	✗	✗	✗
vPvB	✗	✗	✗

PBT Criteria fulfilled?	No
vPvB	No

12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties were found in the current literature.

12.7. Other adverse effects

One or more ingredients within this SDS has the potential of causing ozone depletion and/or photochemical ozone creation.

SECTION 13 Disposal considerations

Continued...

Product / Packaging disposal	‣ Containers may still present a chemical hazard/ danger when empty. ‣ Return to supplier for reuse/ recycling if possible. ‣ **DO NOT** allow wash water from cleaning or process equipment to enter drains. ‣ It may be necessary to collect all wash water for treatment before disposal.
Waste treatment options	Not Available
Sewage disposal options	Not Available

SECTION 14 Transport information

Labels Required

	
Marine Pollutant	
HAZCHEM	2Z

Land transport (ADR-RID)

14.1. **UN number or ID number**	3077
14.2. **UN proper shipping name**	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
14.3. **Transport hazard class(es)**	Class: 9 Subsidiary Hazard: Not Applicable
14.4. **Packing group**	III
14.5. **Environmental hazard**	Environmentally hazardous
14.6. **Special precautions for user**	Hazard identification (Kemler): 90 Classification code: M7 Hazard Label: 9 Special provisions: 274 335 375 601 Limited quantity: 5 kg Tunnel Restriction Code: Not Applicable

Air transport (ICAO-IATA / DGR)

14.1. **UN number**	3077
14.2. **UN proper shipping name**	Environmentally hazardous substance, solid, n.o.s.
14.3. **Transport hazard class(es)**	ICAO/IATA Class: 9 ICAO / IATA Subsidiary Hazard: Not Applicable ERG Code: 9L
14.4. **Packing group**	III
14.5. **Environmental hazard**	Environmentally hazardous
14.6. **Special precautions for user**	Special provisions: A97 A158 A179 A197 A215 Cargo Only Packing Instructions: 956 Cargo Only Maximum Qty / Pack: 400 kg Passenger and Cargo Packing Instructions: 956 Passenger and Cargo Maximum Qty / Pack: 400 kg Passenger and Cargo Limited Quantity Packing Instructions: Y956 Passenger and Cargo Limited Maximum Qty / Pack: 30 kg G

Continued...

Sea transport (IMDG-Code / GGVSee)

14.1. **UN number**	3077
14.2. **UN proper shipping name**	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
14.3. **Transport hazard class(es)**	IMDG Class: 9 IMDG Subsidiary Hazard: Not Applicable
14.4. **Packing group**	III
14.5 **Environmental hazard**	Marine Pollutant
14.6. **Special precautions for user**	EMS Number: F-A, S-F Special provisions: 274 335 966 967 969 Limited Quantities: 5 kg

Inland waterways transport (ADN)

14.1. **UN number**	3077
14.2. **UN proper shipping name**	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
14.3. **Transport hazard class(es)**	9 Not Applicable
14.4. **Packing group**	III
14.5. **Environmental hazard**	Environmentally hazardous
14.6. **Special precautions for user**	Classification code: M7 Special provisions: 274; 335; 375; 601 Limited quantity: 5 kg Equipment required: PP, A*** Fire cones number: 0

14.7. Maritime transport in bulk according to IMO instruments

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
caprylic-capric acid triglyceride	Not Available
menthol	Not Available
cornmint oil	Not Available
spearmint oil	Not Available
ethyl butyrate	Not Available
4-(p-hydroxyphenyl)-2-butanone	Not Available
cis-3-hexen-1-ol	Not Available
ethyl acetate	Not Available
cis-6-nonenal	Not Available
cis-6-nonen-1-ol	Not Available
p-mentha-3-ol	Not Available
peppermint oil	Not Available
phenethyl alcohol	Not Available
lemon oil	Not Available
DL-menthyl acetate	Not Available
iso-amyl iso-valerate	Not Available
trans-2-hexenal	Not Available
orange oil	Not Available

Continued...

Product name	Group
gamma-nonalactone	Not Available
delta-octalactone	Not Available
vanillin	Not Available
3,4-dimethoxybenzaldehyde	Not Available
maltol	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
caprylic-capric acid triglyceride	Not Available
menthol	Not Available
cornmint oil	Not Available
spearmint oil	Not Available
ethyl butyrate	Not Available
4-(p-hydroxyphenyl)-2-butanone	Not Available
cis-3-hexen-1-ol	Not Available
ethyl acetate	Not Available
cis-6-nonenal	Not Available
cis-6-nonen-1-ol	Not Available
p-mentha-3-ol	Not Available
peppermint oil	Not Available
phenethyl alcohol	Not Available
lemon oil	Not Available
DL-menthyl acetate	Not Available
iso-amyl iso-valerate	Not Available
trans-2-hexenal	Not Available
orange oil	Not Available
mandarin oil	Not Available
gamma-nonalactone	Not Available
delta-octalactone	Not Available
vanillin	Not Available
3,4-dimethoxybenzaldehyde	Not Available
maltol	Not Available

SECTION 15 Regulatory information

15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture

caprylic-capric acid triglyceride is found on the following regulatory lists

Europe EC Inventory	European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

menthol is found on the following regulatory lists

Europe EC Inventory	European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

cornmint oil is found on the following regulatory lists

Europe EC Inventory	European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

spearmint oil is found on the following regulatory lists

Europe EC Inventory	European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

ethyl butyrate is found on the following regulatory lists

Europe EC Inventory	European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

Continued...

Europe EC Inventory | European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

cis-3-hexen-1-ol is found on the following regulatory lists

Europe EC Inventory | European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

ethyl acetate is found on the following regulatory lists

EU Consolidated List of Indicative Occupational Exposure Limit Values (IOELVs) | European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

EU REACH Regulation (EC) No 1907/2006 - Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles | European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI

Europe EC Inventory

cis-6-nonenal is found on the following regulatory lists

Europe EC Inventory | European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

cis-6-nonen-1-ol is found on the following regulatory lists

Europe EC Inventory | European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

p-mentha-3-ol is found on the following regulatory lists

Europe EC Inventory | European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

peppermint oil is found on the following regulatory lists

Europe EC Inventory | European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

phenethyl alcohol is found on the following regulatory lists

Europe EC Inventory | European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

lemon oil is found on the following regulatory lists

Not Applicable

DL-menthyl acetate is found on the following regulatory lists

Europe EC Inventory | European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

iso-amyl iso-valerate is found on the following regulatory lists

Europe EC Inventory | European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

trans-2-hexenal is found on the following regulatory lists

Europe EC Inventory | European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

orange oil is found on the following regulatory lists

Not Applicable

mandarin oil is found on the following regulatory lists

Europe EC Inventory | European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

gamma-nonalactone is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List
Europe EC Inventory | European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

delta-octalactone is found on the following regulatory lists

Europe EC Inventory | European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

vanillin is found on the following regulatory lists

Europe EC Inventory | European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

Continued

3,4-dimethoxybenzaldehyde is found on the following regulatory lists

Europe EC Inventory	European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

maltol is found on the following regulatory lists

Europe EC Inventory	European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : Directives 98/24/EC, - 92/85/EEC, - 94/33/EC, - 2008/98/EC, - 2010/75/EU; Commission Regulation (EU) 2020/878; Regulation (EC) No 1272/2008 as updated through ATPs.

Information according to 2012/18/EU (Seveso III):

Seveso Category	E2

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

ECHA SUMMARY

Ingredient	CAS number	Index No	ECHA Dossier
caprylic-capric acid triglyceride	65381-09-1	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Not Classified	Not Available	Not Available
2	Aquatic Chronic 3	GHS09	H412
1	Not Classified	Not Available	Not Available
2	Eye Irrit. 2; Aquatic Acute 1; Aquatic Chronic 4	GHS07; Wng; GHS09	H319; H400; H413

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
menthol	89-78-1	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Skin Irrit. 2	GHS07; Wng	H315
2	Skin Irrit. 2; Eye Dam. 1; STOT SE 3; Acute Tox. 4	GHS05; Dgr	H315; H318; H335; H302
1	Skin Irrit. 2	GHS07; Wng	H315
2	Eye Dam. 1; STOT SE 3; Acute Tox. 4; Skin Corr. 1B; STOT RE 2; Aquatic Acute 1; Aquatic Chronic 1	GHS05; Dgr; GHS08; GHS09	H318; H335; H302; H314; H373; H410
1	Skin Irrit. 2	GHS07; Wng	H315
2	Skin Irrit. 2; Eye Dam. 1; STOT SE 3	GHS05; Dgr	H315; H318; H335
1	Skin Irrit. 2	GHS07; Wng	H315
2	Skin Irrit. 2; Eye Dam. 1; STOT SE 3; Aquatic Chronic 3; Acute Tox. 4	GHS05; Dgr	H315; H318; H335; H412; H302; H317
1	Skin Irrit. 2; Eye Irrit. 2	GHS07; Wng	H315; H319
2	Skin Irrit. 2; Eye Dam. 1; STOT SE 3; Acute Tox. 4	GHS05; Dgr	H315; H318; H335; H302

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
cornmint oil	68917-18-0	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Skin Irrit. 2; Skin Sens. 1; Aquatic Chronic 2	GHS07; GHS09; Wng	H315; H317; H411
2	Skin Irrit. 2; Skin Sens. 1; Aquatic Chronic 2; Acute Tox. 4; Eye Irrit. 2; Asp. Tox. 1	GHS09; GHS08; Dgr	H315; H317; H302; H319; H304; H410
1	Not Classified	Not Available	Not Available
2	Skin Irrit. 2; Skin Sens. 1; Aquatic Chronic 2; Acute Tox. 4; Asp. Tox. 1; Eye Irrit. 2	GHS09; GHS08; Dgr	H315; H317; H411; H302; H304; H319

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Continued...

Ingredient	CAS number	Index No	ECHA Dossier
spearmint oil	8008-79-5	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Acute Tox. 4; Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1; Aquatic Chronic 2	GHS08; GHS09; Dgr	H302; H304; H315; H317; H411
2	Acute Tox. 4; Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1; Aquatic Chronic 2; Eye Irrit. 2; STOT SE 3; Flam. Liq. 3	GHS08; GHS09; Dgr; GHS02	H302; H304; H315; H317; H411; H319; H335; H226
1	Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1; Aquatic Acute 1; Aquatic Chronic 1	GHS02; GHS08; GHS09; Dgr	H226; H304; H315; H317; H410
2	Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1; Aquatic Acute 1; Aquatic Chronic 1; Acute Tox. 1	GHS02; GHS08; GHS09; Dgr; GHS03	H226; H304; H315; H317; H410; H302; H400
1	Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1; Aquatic Chronic 2	GHS02; GHS08; GHS09; Dgr	H226; H304; H315; H317; H411
2	Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1; Aquatic Chronic 2; Acute Tox. 4	GHS02; GHS08; GHS09; Dgr	H226; H304; H315; H317; H411; H302
1	Asp. Tox. 1	GHS08; Dgr	H304
2	Asp. Tox. 1	GHS08; Dgr	H304

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
ethyl butyrate	105-54-4	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Liq. 3	GHS02; Wng	H226
2	Flam. Liq. 3; Eye Irrit. 2; Skin Irrit. 2; STOT SE 3; Aquatic Chronic 2; Acute Tox. 4	GHS07; GHS02; Wng; GHS09	H226; H319; H315; H335; H411; H312

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
4-(p-hydroxyphenyl)-2-butanone	5471-51-2	Not Available	None

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Not Classified	Not Available	Not Available
2	Acute Tox. 4; Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2	GHS07; Wng	H302; H315; H319

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
cis-3-hexen-1-ol	928-96-1	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Liq. 3; Eye Irrit. 2	GHS07; GHS02; Wng	H226; H319
2	Flam. Liq. 3; Eye Irrit. 2; Flam. Sol. 1; Skin Irrit. 2; Acute Tox. 4; STOT SE 3	GHS07; GHS02; Wng; GHS03	H226; H319; H228; H315; H412; H332; H335

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
ethyl acetate	141-78-6	607-022-00-5	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Liq. 2; Eye Irrit. 2; STOT SE 3	GHS02; GHS07; Dgr	H225; H319; H336
2	Eye Irrit. 2; STOT SE 3; Aquatic Chronic 1; STOT SE 3; Acute Tox. 4; Asp. Tox. 1; Skin Sens. 1; Skin Corr. 1; Acute Tox. 4; Flam. Liq. 1	Dgr; GHS01; GHS05; GHS09	H319; H336; H335; H314; H332; H224; H411

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Continued...

Ingredient	CAS number	Index No	ECHA Dossier

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Skin Irrit. 2	GHS07; Wng	H315
2	Skin Irrit. 2; Skin Sens. 1; Eye Dam. 1; STOT SE 3; Aquatic Chronic 3	GHS05; Dgr	H315; H317; H318; H335; H412

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
cis-6-nonen-1-ol	35854-86-5	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Not Classified	Not Available	Not Available
2	Not Classified	Not Available	Not Available

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
p-mentha-3-ol	1490-04-6*	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Skin Irrit. 2	GHS07; Wng	H315
2	Skin Irrit. 2; Eye Dam. 1; STOT SE 3; Acute Tox. 4	GHS05; Dgr	H315; H318; H335; H302

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
peppermint oil	8006-90-4	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Skin Irrit. 2; Skin Sens. 1; Aquatic Chronic 2	GHS07; GHS09; Wng	H315; H317; H411
2	Skin Irrit. 2; Skin Sens. 1; Aquatic Chronic 2; Eye Irrit. 2; Acute Tox. 4; Asp. Tox. 1	GHS09; GHS08; Dgr	H315; H317; H411; H319; H304; H301; H310; H400
1	Skin Irrit. 2; Aquatic Chronic 3	GHS07; Wng	H315; H412
2	Skin Irrit. 2; Skin Sens. 1; Eye Irrit. 2; Aquatic Chronic 2; Asp. Tox. 1; Acute Tox. 4; Flam. Liq. 3; Resp. Sens. 1; STOT SE 3	GHS09; GHS08; Dgr; GHS02	H315; H317; H411; H304; H318; H302; H226; H401; H334; H335; H312; H332
1	Skin Irrit. 2; Skin Sens. 1; Aquatic Chronic 2	GHS07; GHS09; Wng	H315; H317; H411
2	Acute Tox. 4; Skin Irrit. 2; Skin Sens. 1; Eye Irrit. 2; Asp. Tox. 1; Flam. Liq. 3; Aquatic Acute 1; Aquatic Chronic 1	GHS09; Dgr; GHS08; GHS02	H302; H315; H317; H319; H304; H226; H400; H410
1	Skin Irrit. 2; Skin Sens. 1; Aquatic Chronic 2	GHS07; GHS09; Wng	H315; H317; H411
2	Skin Irrit. 2; Skin Sens. 1; Aquatic Chronic 2; Eye Irrit. 2	GHS07; GHS09; Wng	H315; H317; H411; H319

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
phenethyl alcohol	60-12-8	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Acute Tox. 4; Eye Irrit. 2	GHS07; Wng	H302; H319
2	Acute Tox. 4; Eye Dam. 1; Skin Irrit. 2; Acute Tox. 3; Acute Tox. 3; STOT SE 3; STOT RE 2; Skin Sens. 1	GHS05; Dgr; GHS06; GHS08; GHS02	H302; H318; H315; H311; H331; H335; H373; H226; H317

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
lemon oil	8008-56-8	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1; Aquatic Chronic 2	GHS08; GHS02; GHS09; Dgr	H226; H304; H315; H317; H411

Continued...

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
2	Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1; Aquatic Acute 1; Aquatic Chronic 1	GHS08; GHS02; GHS09; Dgr	H226; H304; H315; H317; H410; H400
1	Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1; Aquatic Acute 1; Aquatic Chronic 1	GHS08; GHS02; GHS09; Dgr	H226; H304; H315; H317; H410
2	Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1; Aquatic Acute 1; Aquatic Chronic 1; Eye Irrit. 2; Repr. 2; Acute Tox. 4	GHS08; GHS02; GHS09; Dgr	H226; H304; H315; H317; H410; H319; H400; H361

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
iso-amyl iso-valerate	659-70-1	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Not Classified	Not Available	Not Available
2	Skin Irrit. 2	GHS07; Wng	H315
1	Not Classified	Not Available	Not Available
2	Not Classified	Not Available	Not Available
1	Aquatic Chronic 2	GHS09	H411
2	Aquatic Chronic 2; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; Aquatic Acute 1	GHS09; Wng; GHS07	H411; H315; H319; H335

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
trans-2-hexenal	6728-26-3	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Liq. 3; Acute Tox. 4; Acute Tox. 3; Skin Sens. 1B; Eye Irrit. 2; Aquatic Chronic 2	GHS02; GHS09; GHS06; Dgr	H226; H302; H311; H317; H319; H411
2	Skin Irrit. 2; Skin Sens. 1A; Eye Irrit. 2; Aquatic Chronic 2; Flam. Liq. 3; Acute Tox. 3; Acute Tox. 3; STOT SE 3; Acute Tox. 4	GHS08; GHS09; GHS02; GHS06; Dgr	H315; H317; H319; H411; H226; H311; H335; H301; H332

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
orange oil	8008-57-9	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1; Aquatic Acute 1; Aquatic Chronic 1	GHS08; GHS02; GHS09; Dgr	H226; H304; H315; H317; H410
2	Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1; Aquatic Acute 1; Aquatic Chronic 1; Acute Tox. 4; Acute Tox. 2; Eye Irrit. 2; Acute Tox. 2	GHS08; GHS02; GHS09; Dgr; GHS06; GHS05	H226; H304; H315; H317; H410; H400; H302; H310; H319; H330

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
mandarin oil	8008-31-9	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1; Aquatic Acute 1; Aquatic Chronic 1	GHS02; GHS08; GHS09; Dgr	H226; H304; H315; H317; H410
2	Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1; Aquatic Acute 1; Aquatic Chronic 1; Eye Irrit. 2; Acute Tox. 4; Repr. 2	GHS02; GHS08; GHS09; Dgr	H226; H304; H315; H317; H410; H400; H319; H302; H361
1	Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1; Aquatic Acute 1; Aquatic Chronic 1	GHS02; GHS08; GHS09; Dgr	H226; H304; H315; H317; H410
2	Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1; Aquatic Acute 1; Aquatic Chronic 1; Flam. Liq. 2; Repr. 2; Acute Tox. 4; Eye Irrit. 2	GHS02; GHS08; GHS09; Dgr	H304; H317; H410; H400; H314; H225; H361; H312; H319

Continued

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
gamma-nonalactone	104-61-0	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Not Classified	Not Available	Not Available
2	Eye Irrit. 2; Skin Irrit. 2; STOT SE 3	GHS07; Wng	H319; H335; H315

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
delta-octalactone	698-76-0	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Not Classified	Not Available	Not Available
2	Skin Irrit. 2; Eye Irrit. 2	GHS07; Wng	H315; H319

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
vanillin	121-33-5	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Eye Irrit. 2	GHS07; Wng	H319
2	Eye Irrit. 2; Skin Sens. 1; Acute Tox. 4; Skin Irrit. 2; Aquatic Chronic 3; Aquatic Acute 1; STOT SE 3; Acute Tox. 4; Muta. 2; Repr. 2	GHS05; Dgr; GHS09; GHS08	H319; H317; H302; H315; H332; H335; H412; H400; H341; H361

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
3,4-dimethoxybenzaldehyde	120-14-9	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Acute Tox. 4	GHS07; Wng	H302
2	Acute Tox. 4; Skin Sens. 1B; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3	GHS07; Dgr	H317; H319; H335; H301; H314; H331; H411

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
maltol	118-71-8	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Acute Tox. 4	GHS07; Wng	H302
2	Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3	GHS07; Wng	H302; H315; H319; H335; H312

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (caprylic-capric acid triglyceride; menthol; cornmint oil; spearmint oil; ethyl butyrate; 4-(p-hydroxyphenyl)-2-butanone; cis-3-hexen-1-ol; ethyl acetate; cis-6-nonenal; cis-6-nonen-1-ol; p-mentha-3-ol; peppermint oil; phenethyl alcohol; lemon oil; DL-menthyl acetate; iso-amyl iso-valerate; orange oil; mandarin oil; gamma-nonalactone; delta-octalactone; vanillin; 3,4-dimethoxybenzaldehyde; maltol)
China - IECSC	No (phenethyl alcohol)
Europe - EINEC / ELINCS / NLP	No (lemon oil; orange oil)
Japan - ENCS	No (cornmint oil; spearmint oil; cis-6-nonenal; peppermint oil; lemon oil; orange oil; mandarin oil)

Continued...

National Inventory	Status
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	No (cornmint oil; cis-6-nonenal; cis-6-nonen-1-ol; p-mentha-3-ol; lemon oil; iso-amyl iso-valerate; mandarin oil; gamma-nonalactone)
Vietnam - NCI	Yes
Russia - FBEPH	No (caprylic-capric acid triglyceride; cornmint oil; spearmint oil; lemon oil; DL-menthyl acetate; mandarin oil; delta-octalactone)
Legend:	*Yes = All CAS declared ingredients are on the inventory* *No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.*

SECTION 16 Other information

Revision Date	18/10/2023
Initial Date	16/10/2023

Full text Risk and Hazard codes

H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H341	Suspected of causing genetic defects.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H401	Toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

Disclaimer: “The information in SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.”

Continued...

EN 166 Personal eye-protection
EN 340 Protective clothing
EN 374 Protective gloves against chemicals and micro-organisms
EN 13832 Footwear protecting against chemicals
EN 133 Respiratory protective devices

Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average
PC—STEL: Permissible Concentration-Short Term Exposure Limit
IARC: International Agency for Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists
STEL: Short Term Exposure Limit
TEEL: Temporary Emergency Exposure Limit。
IDLH: Immediately Dangerous to Life or Health Concentrations
ES: Exposure Standard
OSF: Odour Safety Factor
NOAEL: No Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
TLV: Threshold Limit Value
LOD: Limit Of Detection
OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index
DNEL: Derived No-Effect Level
PNEC: Predicted no-effect concentration
AIIC: Australian Inventory of Industrial Chemicals
DSL: Domestic Substances List
NDSL: Non-Domestic Substances List
IECSC: Inventory of Existing Chemical Substance in China
EINECS: European INventory of Existing Commercial chemical Substances
ELINCS: European List of Notified Chemical Substances
NLP: No-Longer Polymers
ENCS: Existing and New Chemical Substances Inventory
KECI: Korea Existing Chemicals Inventory
NZIoC: New Zealand Inventory of Chemicals
PICCS: Philippine Inventory of Chemicals and Chemical Substances
TSCA: Toxic Substances Control Act
TCSI: Taiwan Chemical Substance Inventory
INSQ: Inventario Nacional de Sustancias Químicas
NCI: National Chemical Inventory
FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Classification according to regulation (EC) No 1272/2008 [CLP] and amendments	Classification Procedure
Aspiration Hazard Category 1, H304	Calculation method
Skin Corrosion/Irritation Category 2, H315	Calculation method
Sensitisation (Skin) Category 1B, H317	Calculation method
Serious Eye Damage/Eye Irritation Category 2, H319	Calculation method
Hazardous to the Aquatic Environment Long-Term Hazard Category 2, H411	Calculation method
, EUH018	Calculation method
, EUH019	Calculation method

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BEZPEČNOSTNÍ LIST /podle přílohy II Nařízení Evropského parlamentu a Rady (ES) č. 1907/2006/

Flavor balls (Vonné kuličky)
Mint; Cherry berry; Passion fruit; Litchi; Vanilla; Coconut;
Energy drink; Peach; Apple; Whiskey

ODDÍL 1: IDENTIFIKACE LÁTKY/SMĚSI A SPOLEČNOSTI/PODNIKU

1.1 Identifikátor výrobku: Obchodní název: **Flavor balls (Vonné kuličky)**
Mint; Cherry berry; Passion fruit; Litchi; Vanilla; Coconut;
Energy drink; Peach; Apple; Whiskey

1.2 Příslušná určená použití látky nebo směsi a nedoporučená použití: Aroma do filtru cigaret

Nedoporučená použití: Neurčena. Používejte pouze k doporučeným účelům.
Není určeno pro orální použití.

1.3 Podrobné údaje o dodavateli bezpečnostního listu:
Obchodní jméno: **DROPP s.r.o.,** Ohrazenice 23, 511 01 Ohrazenice
mail: info@idrs.cz
tel.:+420 777 600 628

Odborně způsobilá osoba odpovědná za bezpečnostní list: Eva.Vankova@abitec.cz

1.4 Telefonní číslo pro naléhavé situace: **224 919 293, 224 915 402** (nepřetržitě)
Toxikologické informační středisko, Na Bojišti 1, Praha 2
E-mail: tis@vfn.cz

ODDÍL 2: IDENTIFIKACE NEBEZPEČNOSTI

2.1 Klasifikace látky nebo směsi:
Směs splňuje kritéria pro klasifikaci jako nebezpečná podle nařízení ES č. 1272/2008. Směs je klasifikována jako nebezpečná ve smyslu nařízení ES č. 1272/2008, ve znění pozdějších předpisů.

Kategorie nebezpečnosti:
Skin Irrit. 2, H315
Skin Sens. 1, H317
Eye Irrit. 2, H319
Aquatic Chronic 3, H412

Údaje o nebezpečnosti:
Dráždí kůži. Může vyvolat alergickou kožní reakci. Způsobuje vážné podráždění očí. Škodlivý pro vodní organismy, s dlouhodobými účinky.

Nejzávažnější nepříznivé fyzikálně-chemické účinky:
Směs není hořlavá. Tepelným rozkladem za vysokých teplot může dojít k uvolnění nebezpečných rozkladných produktů. Zabraňte jejich vdechování. Zabraňte zahřívání na vysoké teploty.

Nejzávažnější nepříznivé účinky na lidské zdraví:
Směs může vyvolat alergickou kožní reakci (zarudnutí, svědění, dermatitida, otok, ekzém). Alergické osoby by se měly vyhnout kontaktu se směsí. Při přímém zasažení očí dráždí oči (slzení, pálení, zarudnutí, až zánět spojivek), dráždí kůži (svědění, pálení, zarudnutí). Zabraňte zasažení očí. Vyhněte se dlouhodobé expozici vdechováním. Dodržujte předepsaný způsob použití.

Nejzávažnější nepříznivé účinky na životní prostředí:
Směs je klasifikována jako škodlivá pro životní prostředí. Zabraňte uvolnění kapalné směsi do složek životního prostředí nebo do kanalizace.
Dodržujte pokyny pro používání, abyste se vyvarovali rizik pro člověka a životní prostředí.
Úplné znění klasifikace a H vět je uvedeno v odd. 16 tohoto bezpečnostního listu.

2.2 Prvky označení
Signální slovo: Varování
Piktogramy: GHS07

Standardní věty o nebezpečnosti:
H315 Dráždí kůži.
H317 Může vyvolat alergickou kožní reakci.
H319 Způsobuje vážné podráždění očí.
H412 Škodlivý pro vodní organismy, s dlouhodobými účinky.

Pokyny pro bezpečné zacházení:
P101 Je-li nutná lékařská pomoc, mějte po ruce obal nebo štítek výrobku.
P102 Uchovávejte mimo dosah dětí.
P302+P352 PŘI STYKU S KŮŽÍ: Omyjte zasaženou kůži velkým množstvím vody.
P333+P313 Při podráždění kůže nebo vyrážce: Vyhledejte lékařské ošetření.
P305 + P351 + P338 PŘI ZASAŽENÍ OČÍ: Několik minut opatrně vyplachujte vodou. Vyjměte kontaktní čočky, jsou-li nasazeny, a pokud je lze vyjmout snadno. Pokračujte ve vyplachování.

P273 Zabraňte uvolnění do životního prostředí.
P501 Odstraňte obsah/obal podle místních předpisů předáním oprávněné osobě k likvidaci.

Nebezpečné komponenty k etiketování:
Mint: Peppermint oil (Olej z máty peprné); Menthon

Cherry berry: Furaneol

Passion fruit: Sladký pomerančový olej; Damascone

Litchi: Geraniol; Citronellol; Linalool

Vanilla: Obsahuje 2,3-pentandion. Může vyvolat alergickou reakci.

Energy drink: Methyl-salicylát

Peach: Linalool

Apple: trans-2-hexen-1-ol; trans-hex-2-enal; Damascone

Doplňující informace na štítku:
Identifikátor výrobku: **Flavor balls (Vonné kuličky)** Aroma do filtrů cigaret
Mint; Cherry berry; Passion fruit; Litchi; Vanilla; Coconut; Energy drink; Peach; Apple; Whiskey
EUH066 Opakovaná expozice může způsobit vysušení nebo popraskání kůže.
Dodavatel směsi: **DROPP s.r.o.,** Ohrazenice 23, 511 01 Ohrazenice; info@idrs.cz; tel: +420 777 600 628

2.3 Další nebezpečnost:
Směs ani její složky nesplňují kritéria pro perzistentní, bioakumulativní a toxické nebo vysoce perzistentní a vysoce bioakumulativní látky v souladu s přílohou XIII v souladu s přílohou XIII, ani nebyly k datu vyhotovení bezpečnostního listu zařazeny do seznamu sestaveného v souladu s čl. 59 odst. 1, nevykazuje vlastnosti vyvolávající narušení činnosti endokrinního systému ani není látkou s vlastnostmi vyvolávajícími narušení endokrinní činnosti v souladu s kritérii stanovenými v nařízení Komise v přenesené pravomoci (EU) 2017/2100 nebo v nařízení Komise (EU) 2018/605.

ODDÍL 3: SLOŽENÍ/INFORMACE O SLOŽKÁCH

3.1 Látky: Nejedná se o látku.

3.2 Směsi

Směs obsahuje níže uvedené aromatické látky, které jsou klasifikovány jako nebezpečné podle kritérií v nařízení 1272/2008, na alginátovém nosiči z látek, které nejsou klasifikovány jako nebezpečné ani pro ně nejsou stanoveny expoziční limity (karagenan; alginát sodný; guma gellan; glycerol, apod.).

MINT

Chemický název	Obsah [%]	CAS No. EC No. Index No.	Výstražný symbol nebezpečnosti	Klasifikace	Specifické a obecné koncentrační limity
Kyselina dekanová, ester s oktanoátem 1,2,3-propantriolu (MCT)	< 50	65381-09-1 265-724-3 --	Látka není klasifikovaná jako nebezpečná podle kritérií v nařízení ES č. 1272/2008, ve znění pozdějších předpisů. Nejsou pro ni stanoveny expoziční limity pro pracovní prostředí.		
DL-Menthol	20 – 30	1490-04-6 216-074-4 --	GHS07	Skin Irrit. 2, H315 Eye Irrit. 2, H319	Skin Irrit. 2, H315: C ≥ 10% Eye Irrit. 2, H319: C ≥ 10%
Peppermint oil (Olej z máty peprné)	5 – 15	8006-90-4 308-770-2 --	GHS07	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Aquatic Chronic 3, H412	Skin Sens. 1, H317: C ≥ 1% Skin Irrit. 2, H315: C ≥ 10% Eye Irrit. 2, H319: C ≥ 10%
Vanilin	1 – 3	121-33-5 204-465-2 --	GHS07	Eye Irrit. 2, H319	Eye Irrit. 2, H319: C ≥ 10%
Ethylmaltol	< 1	4940-11-8 225-582-5 --	GHS07	Acute Tox. 4, H302	
Menthon	< 1	14073-97-3 245-926-1 --	GHS07	Skin Irrit. 2, H315 Skin Sens. 1, H317	Skin Sens. 1, H317: C ≥ 1% Skin Irrit. 2, H315: C ≥ 10%
Damascone	< 0,1	23726-91-2 245-842-1 --	GHS07 GHS09	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411	Skin Sens. 1, H317: C ≥ 1% EUH208: 0,1 - < 1 % Skin Irrit. 2, H315: C ≥ 10% Aquatic Chronic 2, H411: C ≥ 25%

CHERRY BERRY

Chemický název	Obsah [%]	CAS No. EC No. Index No.	Výstražný symbol nebezpečnosti	Klasifikace	Specifické a obecné koncentrační limity
Kyselina dekanová, ester s oktanoátem 1,2,3-propantriolu (MCT)	< 50	65381-09-1 265-724-3 --	Látka není klasifikovaná jako nebezpečná podle kritérií v nařízení ES č. 1272/2008, ve znění pozdějších předpisů. Nejsou pro ni stanoveny expoziční limity pro pracovní prostředí.		
Vanilin	1 – 5	121-33-5 204-465-2 --	GHS07	Eye Irrit. 2, H319	Eye Irrit. 2, H319: C ≥ 10%
Ethylmaltol	1 – 5	4940-11-8 225-582-5 --	GHS07	Acute Tox. 4, H302	
Furaneol	< 1	3658-77-3 222-908-8 --	GHS07	Acute Tox. 4, H302 Eye Irrit. 2, H319 Skin Sens. 1A, H317	Skin Sens. 1A, H317: C ≥ 0,1% Eye Irrit. 2, H319: C ≥ 10%
4-undekanolid	< 1	104-67-6 203-306-4 --	--	Aquatic Chronic 3, H412	
Ethylbutyrát	1 – 5	105-54-4 203-306-4 --	GHS02	Flam. Liq. 3, H226	

PASSION FRUIT

Chemický název	Obsah [%]	CAS No. EC No. Index No.	Výstražný symbol nebezpečnosti	Klasifikace	Specifické a obecné koncentrační limity
Kyselina dekanová, ester s oktanoátem 1,2,3-propantriolu (MCT)	< 70	65381-09-1 265-724-3 --	Látka není klasifikovaná jako nebezpečná podle kritérií v nařízení ES č. 1272/2008, ve znění pozdějších předpisů. Nejsou pro ni stanoveny expoziční limity pro pracovní prostředí.		
Sladký pomerančový olej	5 – 10	8008-57-9 616-926-9 --	GHS02, GHS07 GHS08, GHS09	Flam. Liq. 3, H226 Asp. Tox. 1, H304 Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	Skin Sens. 1, H317: C ≥ 1% Skin Irrit. 2, H315: C ≥ 10% Eye Irrit. 2, H319: C ≥ 10% Aquatic Acute 1, H400: C ≥ 25%
Ethylmaltol	1 – 5	4940-11-8 225-582-5 --	GHS07	Acute Tox. 4, H302	
Ethylbutyrát	1 – 5	105-54-4 203-306-4 --	GHS02	Flam. Liq. 3, H226	
Ethyl-acetát	1 – 5	141-78-6 205-500-4 607-022-00-5	GHS02 GHS07	Flam. Liq. 3, H226 Eye Irrit. 2, H319 STOT SE 3, H336	Eye Irrit. 2, H319: C ≥ 10% STOT SE 3, H336: C ≥ 20%
Damascone	< 1	23726-91-2 245-842-1 --	GHS07 GHS09	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411	Skin Sens. 1, H317: C ≥ 1% EUH208: 0,1 - < 1 % Skin Irrit. 2, H315: C ≥ 10% Aquatic Chronic 2, H411: C ≥ 25%
Cis-3-hexenol	< 1	928-96-1 213-192-8 --	GHS02 GHS07	Flam. Liq. 3, H226 Eye Irrit. 2, H319	Eye Irrit. 2, H319: C ≥ 10%
Cis-3-hexenyl acetát	< 1	3681-71-8 222-960-1 --	GHS02	Flam. Liq. 3, H226	
Dekanal	< 1	112-31-2 203-957-4 --	GHS07	Eye Irrit. 2, H319 Aquatic Chronic 3, H412	

LITCHI

Chemický název	Obsah [%]	CAS No. EC No. Index No.	Výstražný symbol nebezpečnosti	Klasifikace	Specifické a obecné koncentrační limity
Kyselina dekanová, ester s oktanoátem 1,2,3-propantriolu (MCT)	< 80	65381-09-1 265-724-3 --	Látka není klasifikovaná jako nebezpečná podle kritérií v nařízení ES č. 1272/2008, ve znění pozdějších předpisů. Nejsou pro ni stanoveny expoziční limity pro pracovní prostředí.		

Benzylalkohol	5 – 10	100-51-6 202-859-9 603-057-00-5	GHS07	Acute Tox. 4, H302+H332	
Ethylbutyrát	1 – 5	105-54-4 203-306-4 --	GHS02	Flam. Liq. 3, H226	
Gamma-dekalakton	1 – 3	706-14-9 211-892-8 --	Látka není klasifikovaná jako nebezpečná podle kritérií v nařízení ES č. 1272/2008, ve znění pozdějších předpisů. Nejsou pro ni stanoveny expoziční limity pro pracovní prostředí.		
Geraniol	1 –3	106-24-1 203-377-1 6030-241-00-5	GHS07	Skin Sens. 1, H317	Skin Sens. 1, H317: C ≥ 1%
Citronellol	< 1	106-22-9 203-375-0 --	GHS07	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319	Skin Sens. 1, H317: C ≥ 1% EUH208: 0,1 - < 1 % Skin Irrit. 2, H315: C ≥ 10% Eye Irrit. 2, H319: C ≥ 10%
Cis-3-hexenol	< 1	928-96-1 213-192-8 --	GHS02 GHS07	Flam. Liq. 3, H226 Eye Irrit. 2, H319	Eye Irrit. 2, H319: C ≥ 10%
Linalool	< 1	78-70-6 201-134-4 603-235-00-2	GHS07	Skin Sens. 1, H317	Skin Sens. 1, H317: C ≥ 1%

VANILLA

Chemický název	Obsah [%]	CAS No. EC No. Index No.	Výstražný symbol nebezpečnosti	Klasifikace	Specifické a obecné koncentrační limity
Kyselina dekanová, ester s oktanoátem 1,2,3-propantriolu (MCT)	< 80	65381-09-1 265-724-3 --	Látka není klasifikovaná jako nebezpečná podle kritérií v nařízení ES č. 1272/2008, ve znění pozdějších předpisů. Nejsou pro ni stanoveny expoziční limity pro pracovní prostředí.		
Vanilin	1 – 5	121-33-5 204-465-2 --	GHS07	Eye Irrit. 2, H319	Eye Irrit. 2, H319: C ≥ 10%
Ethylvanilin	1 – 5	121-32-4 204-464-7 --	GHS07	Eye Irrit. 2, H319	Eye Irrit. 2, H319: C ≥ 10%
Ethylmaltol	1 – 5	4940-11-8 225-582-5 --	GHS07	Acute Tox. 4, H302	
p-Anisaldehyd	< 1	123-11-5 204-602-6 --	Látka není klasifikovaná jako nebezpečná podle kritérií v nařízení ES č. 1272/2008, ve znění pozdějších předpisů. Nejsou pro ni stanoveny expoziční limity pro pracovní prostředí.		
2,3-Pentandion	< 1	600-14-6 209-984-8 --	GHS02, GHS05, GHS07, GSH08	Flam. Liq. 2, H225 Skin Sens. 1, H317 Eye Dam. 1, H318 STOT RE 2, H373	Skin Sens. 1, H317: C ≥ 1% EUH208: 0,1 - < 1 % Eye Dam. 1, H318: C ≥ 3% STOT RE 2, H373: C ≥ 10%

COCONUT

Chemický název	Obsah [%]	CAS No. EC No. Index No.	Výstražný symbol nebezpečnosti	Klasifikace	Specifické a obecné koncentrační limity
Kyselina dekanová, ester s oktanoátem 1,2,3-propantriolu (MCT)	< 80	65381-09-1 265-724-3 --	Látka není klasifikovaná jako nebezpečná podle kritérií v nařízení ES č. 1272/2008, ve znění pozdějších předpisů. Nejsou pro ni stanoveny expoziční limity pro pracovní prostředí.		
Gamma-dekalakton	5 – 10	706-14-9 211-892-8 --	Látka není klasifikovaná jako nebezpečná podle kritérií v nařízení ES č. 1272/2008, ve znění pozdějších předpisů. Nejsou pro ni stanoveny expoziční limity pro pracovní prostředí.		
Ethyl-acetát	1 – 5	141-78-6 205-500-4 607-022-00-5	GHS02 GHS07 EUH066	Flam. Liq. 3, H226 Eye Irrit. 2, H319 STOT SE 3, H336	Eye Irrit. 2, H319: C ≥ 10% STOT SE 3, H336: C ≥ 20%
Heptan-4-olid	1 – 5	105-21-5 203-279-9 --	Látka není klasifikovaná jako nebezpečná podle kritérií v nařízení ES č. 1272/2008, ve znění pozdějších předpisů. Nejsou pro ni stanoveny expoziční limity pro pracovní prostředí.		
Oktan-4-olid	1 – 5	104-50-7 203-208-1 --	Látka není klasifikovaná jako nebezpečná podle kritérií v nařízení ES č. 1272/2008, ve znění pozdějších předpisů. Nejsou pro ni stanoveny expoziční limity pro pracovní prostředí.		
Ethylbutyrát	1 – 5	105-54-4 203-306-4 --	GHS02	Flam. Liq. 3, H226	

6-Methylkumarin	< 1	92-48-8 202-158-8 --	GHS07	Acute Tox. 4, H302 Eye Irrit. 2, H319	Eye Irrit. 2, H319: C ≥ 10%

ENERGY DRINK

Chemický název	Obsah [%]	CAS No. EC No. Index No.	Výstražný symbol nebezpečnosti	Klasifikace	Specifické a obecné koncentrační limity
Kyselina dekanová, ester s oktanoátem 1,2,3-propantriolu (MCT)	< 80	65381-09-1 265-724-3 --	Látka není klasifikovaná jako nebezpečná podle kritérií v nařízení ES č. 1272/2008, ve znění pozdějších předpisů. Nejsou pro ni stanoveny expoziční limity pro pracovní prostředí.		
Vanilin	1 – 5	121-33-5 204-465-2 --	GHS07	Eye Irrit. 2, H319	Eye Irrit. 2, H319: C ≥ 10%
Allyl hexanoát	1 – 5	123-68-2 204-642-4 --	GHS06 GHS09	Acute Tox. 3, H301+H311+H331 Aquatic Acute 1, H400 Aquatic Chronic 3, H412	Aquatic Acute 1, H400: C ≥ 25%
Ethylbutyrát	1 – 5	105-54-4 203-306-4 --	GHS02	Flam. Liq. 3, H226	
Isopentyl-acetát	1 – 2	123-92-2 204-662-3 607-130-00-2	GHS02	Flam. Liq. 3, H226	
Methyl-salicylát	1 – 2	119-36-8 204-317-7 607-749-00-8	GHS07 GHS08	Acute Tox. 4, H302 Skin Sens. 1B, H317 Repr. 2, H361d Aquatic Chronic 3, H412	ATE oral 890 mg/kg Skin Sens. 1, H317: C ≥ 1% Repr. 2, H361: C ≥ 3%
Ethyl-acetát	1 – 2	141-78-6 205-500-4 607-022-00-5	GHS02 GHS07 EUH066	Flam. Liq. 3, H226 Eye Irrit. 2, H319 STOT SE 3, H336	Eye Irrit. 2, H319: C ≥ 10% STOT SE 3, H336: C ≥ 20%
Irison	< 1	14901-07-6 238-969-9 --	GHS09	Aquatic Chronic 2, H411	Aquatic Chronic 2, H411: C ≥ 25%

PEACH

Chemický název	Obsah [%]	CAS No. EC No. Index No.	Výstražný symbol nebezpečnosti	Klasifikace	Specifické a obecné koncentrační limity
Kyselina dekanová, ester s oktanoátem 1,2,3-propantriolu (MCT)	< 80	65381-09-1 265-724-3 --	Látka není klasifikovaná jako nebezpečná podle kritérií v nařízení ES č. 1272/2008, ve znění pozdějších předpisů. Nejsou pro ni stanoveny expoziční limity pro pracovní prostředí.		
Gamma-nonanolakton	5 – 10	104-61-0 203-219-1 --	Látka není klasifikovaná jako nebezpečná podle kritérií v nařízení ES č. 1272/2008, ve znění pozdějších předpisů. Nejsou pro ni stanoveny expoziční limity pro pracovní prostředí.		
Ethylbutyrát	1 – 5	105-54-4 203-306-4 --	GHS02	Flam. Liq. 3, H226	
Ethyl-acetát	1 – 5	141-78-6 205-500-4 607-022-00-5	GHS02 GHS07 EUH066	Flam. Liq. 3, H226 Eye Irrit. 2, H319 STOT SE 3, H336	Eye Irrit. 2, H319: C ≥ 10% STOT SE 3, H336: C ≥ 20%
Linalool	1 – 5	78-70-6 201-134-4 603-235-00-2	GHS07	Skin Sens. 1, H317	Skin Sens. 1, H317: C ≥ 1%
Isopentyl-acetát	1 – 2	123-92-2 204-662-3 607-130-00-2	GHS02	Flam. Liq. 3, H226	
Isopentyl-butyrát	< 1	106-27-4 203-380-8 --	GHS02	Flam. Liq. 3, H226 Aquatic Chronic 3, H412	
Cis-3-hexenol	< 1	928-96-1 213-192-8 --	GHS02 GHS07	Flam. Liq. 3, H226 Eye Irrit. 2, H319	Eye Irrit. 2, H319: C ≥ 10%
p-Mentha-8-thiolon	< 0,1	38462-22-5 253-953-1 --	GHS07	Skin Sens. 1, H317	Skin Sens. 1, H317: C ≥ 1% EUH208: 0,1 - < 1 %

APPLE

Chemický název	Obsah [%]	CAS No. EC No. Index No.	Výstražný symbol nebezpečnosti	Klasifikace	Specifické a obecné koncentrační limity
Kyselina dekanová, ester s oktanoátem 1,2,3-propantriolu (MCT)	< 70	65381-09-1 265-724-3 --	Látka není klasifikovaná jako nebezpečná podle kritérií v nařízení ES č. 1272/2008, ve znění pozdějších předpisů. Nejsou pro ni stanoveny expoziční limity pro pracovní prostředí.		
trans-2-hexen-1-ol	1 – 5	928-95-0 213-191-2 --	GHS02 GHS07	Flam. Liq. 3, H226 Skin Sens. 1, H317 Eye Irrit. 2, H319	Skin Sens. 1, H317: C ≥ 1% Eye Irrit. 2, H319: C ≥ 10%
trans-hex-2-enal	1 – 5	6728-26-3 229-778-1 --	GHS07 GHS09	Acute Tox. 4, H302 Skin Sens. 1A, H317 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	Skin Sens. 1A, H317: C ≥ 0,1% Eye Irrit. 2, H319: C ≥ 10% Skin Irrit. 2, H315: C ≥ 10% Aquatic Chronic 2, H411: C ≥ 25%
Ethylbutyrát	1 – 5	105-54-4 203-306-4 --	GHS02	Flam. Liq. 3, H226	
Ethyl-acetát	1 – 5	141-78-6 205-500-4 607-022-00-5	GHS02 GHS07	Flam. Liq. 3, H226 Eye Irrit. 2, H319 STOT SE 3, H336	Eye Irrit. 2, H319: C ≥ 10% STOT SE 3, H336: C ≥ 20%
1-Hexanol	1 – 5	111-27-3 203-852-3 --	GHS07	Acute Tox. 4, H302	
Damascone	< 1	23726-91-2 245-842-1 --	GHS07 GHS09	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411	Skin Sens. 1, H317: C ≥ 1% EUH208: 0,1 - < 1 % Skin Irrit. 2, H315: C ≥ 10% Aquatic Chronic 2, H411: C ≥ 25%
Cis-3-hexenyl acetát	< 1	3681-71-8 222-960-1 --	GHS02	Flam. Liq. 3, H226	

WHISKEY

Chemický název	Obsah [%]	CAS No. EC No. Index No.	Výstražný symbol nebezpečnosti	Klasifikace	Specifické a obecné koncentrační limity
Kyselina dekanová, ester s oktanoátem 1,2,3-propantriolu (MCT)	< 80	65381-09-1 265-724-3 --	Látka není klasifikovaná jako nebezpečná podle kritérií v nařízení ES č. 1272/2008, ve znění pozdějších předpisů. Nejsou pro ni stanoveny expoziční limity pro pracovní prostředí.		
Vanilin	1 – 5	121-33-5 204-465-2 --	GHS07	Eye Irrit. 2, H319	Eye Irrit. 2, H319: C ≥ 10%
Ethylmaltol	1 – 5	4940-11-8 225-582-5 --	GHS07	Acute Tox. 4, H302	
Ethylvanilin	< 1	121-32-4 204-464-7 --	GHS07	Eye Irrit. 2, H319	Eye Irrit. 2, H319: C ≥ 10%
Ethyl-acetát	< 1	141-78-6 205-500-4 607-022-00-5	GHS02 GHS07 EUH066	Flam. Liq. 3, H226 Eye Irrit. 2, H319 STOT SE 3, H336	Eye Irrit. 2, H319: C ≥ 10% STOT SE 3, H336: C ≥ 20%
3-methyl-1-butanol	< 1	123-51-3 204-633-5 --	GHS02, GHS05, GHS07 EUH066	Flam. Liq. 3, H226 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335	Skin Irrit. 2, H315: C ≥ 10% Eye Dam. 1, H318: C ≥ 3% STOT SE 3, H335: C ≥ 20%
Kyselina hexanová	< 0,1	142-62-1 205-550-7 --	GHS05	Skin Corr. 1C, H314	Skin Corr. 1, H314: C ≥ 5%

ODDÍL 4: POKYNY PRO PRVNÍ POMOC

4.1 Popis první pomoci:

Při projevech zdravotních obtíží nebo v případě pochybností vyhledejte lékaře a poskytněte mu informace z tohoto bezpečnostního listu. V případě život ohrožujících stavů proveďte resuscitaci a přivolejte okamžitou lékařskou pomoc. Osobu v bezvědomí uložte do stabilizované polohy, nepodávejte jídlo a pití, zajistěte teplo a klid. V případě dýchacích obtíží zajistěte přívod kyslíku. Pokud postižený nedýchá, zajistěte umělé dýchání. Nevyvolávejte zvracení. Při spontánním zvracení zabraňte vdechnutí zvratků.

Při vdechnutí:
Objeví-li obtíže při nadýchání, přerušte expozici, nadýchejte se čerstvého vzduchu. Při přetrvávajících obtížích vyhledejte lékařskou pomoc.

Při styku s kůží:
Odstraňte kontaminovaný oděv, před dalším použitím vyperte. Zasaženou kůži důkladně omyjte vodou a mýdlem. Objeví-li se a přetrvávají-li příznaky podráždění nebo alergické reakce, vyhledejte lékařské ošetření.

Při zasažení očí:
Náhodné zasažení očí není pravděpodobné. Pokud má postižený kontaktní čočky, vyjměte je. Široce otevřené oči a prostor pod víčky vypláchněte velkým množstvím čisté vlažné vody po dobu alespoň 10 minut. Objeví-li se a přetrvává-li podráždění očí, vyhledejte lékařské ošetření.

Při požití:
Nevyvolávejte zvracení. V případě požití vypláchněte ústa vodou, vypijte sklenici vody. Neprodleně vyhledejte lékařskou pomoc.

4.2 Nejdůležitější akutní a opožděné symptomy a účinky
Směs může vyvolat alergickou kožní reakci (zarudnutí, svědění, dermatitida, otok, ekzém). Alergické osoby by se měly vyhnout kontaktu se směsí. Při přímém zasažení očí dráždí oči (slzení, pálení, zarudnutí, až zánět spojivek), dráždí kůži (svědění, pálení, zarudnutí).

4.3 Pokyn týkající se okamžité lékařské pomoci a zvláštního ošetření
Při obvyklém použití směsi není okamžitá lékařská pomoc nutná. Požaduje se jen v případě, dosáhnou-li příznaky určitého stupně, podle údajů v odstavcích 4.1 a 4.2; je symptomatická.

ODDÍL 5: OPATŘENÍ PRO HAŠENÍ POŽÁRU

5.1 Hasiva
Vhodná hasiva: Směs není klasifikována jako hořlavá, hasiva přizpůsobte požáru v okolí (víceúčelové prášky, CO_2, pěna, vodní mlha).
Nevhodná hasiva: Plný proud vody

5.2 Zvláštní nebezpečnost vyplývající z látky nebo směsi:
Tepelným rozkladem za vysokých teplot nebo při požáru mohou vznikat nebezpečné rozkladné produkty (CO, CO_2, těžký kouř, jiné nebezpečné plyny). Nevdechujte rozkladné produkty.

5.3 Pokyny pro hasiče:
Ochranné prostředky přizpůsobte charakteru požáru (izolační dýchací přístroj, zásahový oblek). Obaly se směsí v blízkosti požáru ochlazujte rozprášenou vodou.
Další údaje: Zabraňte úniku kontaminovaného hasiva do kanalizace nebo složek životního prostředí.

ODDÍL 6: OPATŘENÍ V PŘÍPADĚ NÁHODNÉHO ÚNIKU

6.1 Opatření na ochranu osob, ochranné prostředky a nouzové postupy
Zajistěte dostatečné větrání prostoru úniku. Zabraňte vstupu nepovolaných osob, zajistěte a izolujte prostor úniku. Používejte osobní ochranné prostředky, zabraňte styku s kůží a očima. Zabraňte vdechování výparů v nadměrném množství.

6.2 Opatření na ochranu životního prostředí
Zajistěte prostor úniku, zachyťte unikající směs. Zabraňte úniku do kanalizace, půdy, povrchových a podzemních vod ohrazením místa úniku vhodným sorbentem. V případě velkého úniku monitorujte koncentrace NPK resp. TLV a informujte příslušné orgány státní správy a správce toku nebo kanalizace.

6.3 Metody a materiál pro omezení úniku a pro čištění
Zajistěte dostatečné větrání prostoru úniku. Při menším úniku směs setřete hadrem nebo papírem. Při větším úniku směs pokryjte vhodným sorbentem (písek, piliny, zemina, vermikulit apod.). Použitý sorbent uložte do uzavíratelné nádoby na odpad, označte a zlikvidujte jako nebezpečný odpad. Kontaminované plochy omyjte teplou vodou s mýdlem.

6.4 Odkaz na jiné oddíly:
Doporučené osobní ochranné pomůcky viz odd. 8. Nepoužitou směs likvidujte podle odd. 13.

ODDÍL 7: ZACHÁZENÍ A SKLADOVÁNÍ

7.1 Opatření pro bezpečné zacházení:
Zajistěte dostatečné větrání pracovního prostoru. Zabraňte vytvoření par v koncentraci převyšující limit pro pracovní prostředí. Zabraňte zasažení očí a styku s kůží, zajistěte proti požití. Používejte vhodné osobní ochranné pomůcky. Zabraňte styku výrobku se zápalnými zdroji, nezahřívejte

Dbejte na platné právní předpisy o bezpečnosti a ochraně zdraví. Dodržujte zásady hygieny práce s chemikáliemi, při práci nejezte, nepijte, nekuřte. Před přestávkou, jídlem a po práci si umyjte ruce teplou vodou s mýdlem.

7.2 Podmínky pro bezpečné skladování látek a směsí včetně neslučitelných látek a směsí:
Skladujte v originálních obalech uzávěrem vzhůru na chladných, dobře větraných místech chráněných před přímým slunečním zářením.
Skladujte mimo potravin, nápojů a krmiv. Skladujte mimo dosah dětí.
Dbejte pokynů uvedených na etiketě.
Množstevní limity při daných skladovacích podmínkách: neuvedeno

7.3 Specifické konečné použití: Neurčeno

ODDÍL 8: OMEZOVÁNÍ EXPOZICE / OSOBNÍ OCHRANNÉ PROSTŘEDKY

8.1 Kontrolní parametry:

Chemický název	PEL [mg/m^3]	NPK-P [mg/m^3]	Pozn.	
Ethylacetát	700	900	*I*	Dle Příl. č. 2, Nař. vlády 361/2007 Sb., ve znění pozdějších předpisů.
Isopentylacetát	270	540	--	Dle Příl. č. 2, Nař. vlády 361/2007 Sb., ve znění pozdějších předpisů.

Poznámka I: Dráždí sliznice (oči, dýchací cesty), resp. kůži.

Sledovací postupy:
Zajistěte plnění povinností na pracovišti dle nařízení vlády 361/2007 Sb., ve znění pozdějších předpisů.

Biologické limitní hodnoty: Nejsou stanoveny

Hodnota DNEL a PNEC: Pro spotřebitele neurčeny

8.2 Omezování expozice:
Zajistěte dostatečné větrání, resp. odsávání pracovního prostoru. Zamezte styku s kůží a očima. Dodržujte hygienická opatření pro práci s chemikáliemi. Při práci nejezte, nepijte a nekuřte. Před přestávkou, jídlem a po práci si umyjte ruce vlažnou vodou s mýdlem.
Osobní ochranné pomůcky přizpůsobte charakteru práce.

- Ochrana očí a obličeje:
  Ochrana očí není nutná. Pokud hrozí zasažení očí, použijte ochranné brýle.
- Ochrana kůže:
  Zabraňte dlouhodobému kontaktu s kůží. Zasaženou pokožku omyjte.
- Ochrana rukou:
  Není nutná. Ochranné rukavice pro manipulaci s vlastní směsí a v případě citlivých osob.
  Při výběru dbejte doporučení výrobce, materiál musí být nepropustný a odolný vůči složkám směsi. Před prvním použitím otestujte na konkrétním pracovišti. Poškozené rukavice vyměňte. Zabraňte prodlouženému a opakovanému styku s kůží.
  Citliví lidé a alergici by se měli vyvarovat přímého kontaktu s výrobkem.
- Ochrana dýchacích cest:
  Není nutná. V případě zvýšení koncentrace při vdechování použijte respirátor. Při intenzivním nebo dlouhodobém zatížení použijte masku s filtrem.
- Tepelné nebezpečí:
  Zabraňte vystavení zvýšeným teplotám a zahřívání směsi.

  Omezování expozice životního prostředí
  Dbejte obvyklých opatření na ochranu životního prostředí.

ODDÍL 9: FYZIKÁLNÍ A CHEMICKÉ VLASTNOSTI

9.1 Informace o základních fyzikálních a chemických vlastnostech

Skupenství:	Alginátové kuličky s kapalným obsahem
Barva:	Neurčena
Zápach:	Dle označení příchutě
Bod tání/bod tuhnutí:	Neurčen
Bod varu nebo počáteční bod varu a rozmezí bodu varu:	> 35 °C
Hořlavost:	Směs není hořlavá
Dolní a horní mezní hodnota výbušnosti:	Směs není výbušná
Bod vzplanutí:	Neurčen
Teplota samovznícení:	Směs není samozápalná

Teplota rozkladu:	Neurčena
pH:	Neurčena
Kinematická viskozita (při 40 °C):	Neurčena
Rozpustnost:	Ve vodě – mísitelný
	V tucích – neurčena
	Mísitelná v alkoholech
Rozdělovací koeficient *n*-oktanol/voda:	Neurčen
Tlak páry (při 50 °C):	Neurčen
Hustota a/nebo relativní hustota (při 20 °C):	Neurčena
Relativní hustota páry:	Nestanovena
Charakteristiky částic:	Neurčeny

9.2 Další informace: Neurčeny

ODDÍL 10: STÁLOST A REAKTIVITA

10.1 Reaktivita:
Při dodržení doporučeného způsobu použití nehrozí nebezpečné reakce. Zabraňte zahřívání a styku s neslučitelnými látkami.

10.2 Chemická stabilita:
Směs je stabilní v běžných podmínkách prostředí, skladování i manipulace.

10.3 Možnost nebezpečných reakcí:
Při dodržení doporučeného způsobu použití nehrozí nebezpečné reakce. Při styku s alkoxidy kovů může dojít k požáru.

10.4 Podmínky, kterým je třeba zabránit:
Zahřívání, otevřenému ohni, jiskrám, styku s neslučitelnými materiály.

10.5 Neslučitelné materiály:
Oxidační činidla, silné kyseliny a zásady, hydridy kovů, halogeny kyselin.

10.6 Nebezpečné produkty rozkladu:
Za normálních podmínek se směs nerozkládá. Tepelným rozkladem za vysokých teplot by mohly vznikat nebezpečné rozkladné produkty (CO, CO_2, těžký kouř). Zabraňte vdechování rozkladných produktů.

ODDÍL 11: TOXIKOLOGICKÉ INFORMACE

Data pro směs nejsou k dispozici. Směs je klasifikována na základě kritérií pro klasifikaci směsí v příl. I Nařízení (ES) č. 1272/2008.

11.1 Informace o třídách nebezpečnosti vymezených v nařízení (ES) č. 1272/2008

Akutní toxicita:
Směs není klasifikována jako akutně toxická žádnou cestou expozice.

Žíravost/dráždivost pro kůži:
Směs je klasifikována jako dráždivá pro kůži, kategorie 2. Dráždí kůži.

Vážné poškození očí/podráždění očí:
Směs je klasifikována jako dráždivá pro oči, kategorie 2. Způsobuje vážné podráždění očí.

Senzibilizace dýchacích cest/senzibilizace kůže:
Směs je klasifikována jako senzibilizující kůži, kategorie 1.

Mutagenita v zárodečných buňkách:
Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.

Karcinogenita:
Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.

Toxicita pro reprodukci:
Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.

Toxicita pro specifické cílové orgány – jednorázová expozice:
Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.

Toxicita pro specifické cílové orgány – opakovaná expozice:
Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.

Nebezpečnost při vdechnutí:
Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.

11.2 Informace o další nebezpečnosti
Směs neobsahuje složky, které byly identifikovány jako látky s vlastnostmi vyvolávající narušení činnosti endokrinního systému.
Směs může vyvolat alergickou kožní reakci (zarudnutí, svědění, dermatitida, otok, ekzém). Alergické osoby by se měly vyhnout kontaktu se směsí. Při zasažení očí dráždí oči (slzení, pálení, zarudnutí, až zánět spojivek), dráždí kůži (svědění, pálení, zarudnutí).

ODDÍL 12: EKOLOGICKÉ INFORMACE

Ekotoxické účinky vlastní směsi nebyly posuzovány.

12.1	Toxicita	Směs je klasifikována jako toxická pro vodní prostředí.
12.2	Perzistence a rozložitelnost	Data nejsou k dispozici.
12.3	Bioakumulační potenciál	Data nejsou k dispozici.
12.4	Mobilita v půdě	Data nejsou k dispozici.
Výsledky posouzení PBT a vPvB		Směs neobsahuje látky ze skupin PBT a vPvB podle přílohy XIII nařízení REACH ve znění pozdějších předpisů.
12.6	Vlastnosti vyvolávající narušení činnosti endokrinního systému:	Látky s těmito vlastnostmi v souladu s kritérii stanovenými v nařízení Komise (EU) 2017/2100 nebo (EU) 2018/605 nejsou obsaženy.
12.7	Jiné nepříznivé účinky	Zabraňte úniku do půdy, podzemní či povrchové vody nebo kanalizace. Dbejte obvyklých opatření na ochranu životního prostředí.

ODDÍL 13: POKYNY PRO ODSTRAŇOVÁNÍ

13.1 Metody nakládání s odpady
Směs je nebezpečná pro životní prostředí, předejte jako nebezpečný odpad k likvidaci oprávněné osobě. Neodvádějte směs do kanalizace, neodstraňujte společně s komunálním odpadem. Při likvidaci postupujte v souladu s místními předpisy o zneškodňování odpadů.

Zatřídění podle Katalogu odpadů provede původce odpadu podle vlastností odpadu v době vzniku.

Vhodné metody odstraňování obalů bez obsahu nebezpečných látek: Zneškodněte dle místních předpisů v systému separovaného nebo komunálního odpadu.

Vnitrostátní ustanovení týkající se odpadů:
Zákon o odpadech č. 541/2020 Sb. ve znění pozdějších předpisů.
Zákon č. 477/2001 Sb., o obalech, ve znění pozdějších předpisů.

ODDÍL14. INFORMACE PRO PŘEPRAVU

Preventivní opatření pro přepravu: Přepravujte v obalech odpovídajících vlastnostem směsi.

Směs nepodléhá regulaci přepravy dle ADR, RID, ICAI/IATA, IMDG.

14.1 UN číslo nebo ID číslo Nestanoveno
14.2 Oficiální (OSN) pojmenování pro přepravu Nestanoveno
14.3 Třída/třídy nebezpečnosti pro přepravu Nestanoveno
14.4 Obalová skupina Nestanoveno
14.5 Nebezpečnost pro životní prostředí Nestanoveno
14.6 Zvláštní bezpečnostní opatření pro uživatele Nestanoveno
14.7 Námořní hromadná přeprava podle nástrojů IMO Nestanoveno

ODDÍL 15. INFORMACE O PŘEDPISECH

15.1 Předpisy týkající se bezpečnosti, zdraví a životního prostředí/specifické právní předpisy týkající se látky nebo směsi:

- Nařízení Evropského parlamentu a Rady (ES) č.1272/2008, o klasifikaci, označování a balení látek a směsí (CLP), ve znění pozdějších předpisů.
- Nařízení Evropského parlamentu a Rady (ES) č.1907/2006, o registraci, hodnocení, povolování a omezování chemických látek, ve znění pozdějších předpisů, vč. prováděcích předpisů.

Národní předpisy týkající se ochrany osob nebo životního prostředí

- Zákon č. 350/2011 Sb., o chemických látkách, ve znění pozdějších předpisů a související prováděcí předpisy

Ochrana osob:

- Zákoník práce č. 262/2006 ve znění pozdějších předpisů

- Zákon o ochraně veřejného zdraví č. 258/2000 Sb. ve znění pozdějších předpisů
- Vyhláška, kterou se stanoví hygienické limity chemických, fyzikálních a biologických ukazatelů pro vnitřní prostředí pobytových místností některých staveb č. 6/2003 Sb.
- Nařízení vlády, kterým se stanoví podmínky ochrany zdraví při práci č. 9/2013 Sb. ve znění pozdějších předpisů

Ochrana životního prostředí

- Zákon o ochraně ovzduší č. 172/2018 Sb., ve znění pozdějších předpisů.
- Vyhláška č. 415/2012 Sb., o přípustné úrovni znečišťování a jejím zjišťování a o provedení některých dalších ustanovení zákona o ochraně ovzduší.
- Zákon č. 541/2020 Sb., o odpadech, ve znění pozdějších předpisů
- Zákon č. 477/2001 Sb., o obalech, ve znění pozdějších předpisů
- Zákon č. 113/2018 Sb., kterým se mění zákon č. 254/2001 Sb., o vodách a o změně některých zákonů (vodní zákon), ve znění pozdějších předpisů, a zákon č. 388/1991 Sb., o Státním fondu životního prostředí České republiky, ve znění pozdějších předpisů

Požární předpisy

- Zákon ČNR č. 133/1985 Sb., o požární ochraně, ve znění pozdějších předpisů
- Vyhláška o požární prevenci č. 221/2014 Sb., ve znění pozdějších předpisů

15.2 Posouzení chemické bezpečnosti
Pro tuto směs nebylo zpracováno posouzení chemické bezpečnosti.

ODDÍL 16: DALŠÍ INFORMACE

Seznam H vět obsažených v bezpečnostním listu
H225 Vysoce hořlavá kapalina a páry.
H226 Hořlavá kapalina a páry.
H302 Zdraví škodlivý při požití.
H304 Při požití a vniknutí do dýchacích cest může způsobit smrt.
H314 Způsobuje těžké poleptání kůže a poškození očí.
H315 Dráždí kůži.
H317 Může vyvolat alergickou kožní reakci.
H318 Způsobuje vážné poškození očí.
H319 Způsobuje vážné podráždění očí.
H335 Může způsobit podráždění dýchacích cest.
H336 Může způsobit ospalost nebo závratě.
H361d Podezření na poškození plodu v těle matky.
H373 Může způsobit poškození orgánů při prodloužené nebo opakované expozici.
H400 Vysoce toxický pro vodní organismy.
H410 Vysoce toxický pro vodní organismy, s dlouhodobými účinky.
H411 Toxický pro vodní organismy, s dlouhodobými účinky.
H412 Škodlivý pro vodní organismy, s dlouhodobými účinky.

Seznam zkratek použitých v bezpečnostním listu
Flam. Liq. 2, 3 – Hořlavé kapaliny, kategorie 2, 3
Acute Tox. 4 – Akutní toxicita, kategorie 4
Asp. Tox. 1 – Toxicita při vdechnutí, kategorie 1
Skin Corr. 1/Irrit. 2 – Žíravost/dráždivost pro kůži, kategorie 1, resp. 2
Skin Sens. 1 – Senzibilizace kůže, kategorie 1
Eye Dam. 1/Irrit. 2 – Vážné poškození očí/podráždění očí, kategorie 1, resp. 2
STOT SE 3 Toxicita pro specifické cílové orgány po jednorázové expozici, kategorie 3
STOT RE 2 Toxicita pro specifické cílové orgány po opakované expozici, kategorie 2
Aquatic Acute 1 Krátkodobá (akutní) nebezpečnost pro vodní prostředí, kategorie 1
Aquatic Chronic 1, 2, 3 – Dlouhodobá nebezpečnost pro vodní prostředí, kategorie 1, 2, 3
PBT – persistent, bioaccumulative and toxic
vPvB – very persistent and very bioaccumulative
NPK – nejvyšší přípustné koncentrace
PEL – přípustný expoziční limit
DNEL – Derived No Effect Level
PNEC – Predicted No Effect Concentration
ADR – Agreement on Dangerous Goods by Road – Europe
IATA – International Air Transport Association
ICAO – International Civil Aviation Organization
IMDG – International Maritime Code for Dangerous Goods
RID – Regulations Concerning the International Transport of Dangerous Goods by Rail

Směs by neměla být použita pro žádný jiný účel než pro který je určena (viz. Bod 1.2). Protože specifické podmínky použití směsi nemůže dodavatel kontrolovat, je odpovědností uživatele, aby přizpůsobil předepsaná upozornění místním zákonům a nařízením. Bezpečnostní informace popisují výrobek z hlediska bezpečnostního a nemohou být považovány za technické informace o výrobku.

Pokyny pro školení:
Podle § 103 a § 104 zákona č. 262/2006 Sb., zákoník práce, ve znění pozdějších předpisů.

Zdroje nejdůležitějších informací: Údaje výrobce a toxikologické databáze.

Kontaktní místo pro poskytování technických informací viz bod 1.3 tohoto bezpečnostního listu

Změny oproti předchozímu vydání
Žádné. První vydání BL.
Směs je klasifikována podle kritérií v Příloze I. Nařízení Evropského parlamentu a Rady (ES) č. 1272/2008.

Prohlášení:
Bezpečnostní list obsahuje údaje potřebné pro zajištění bezpečnosti a ochrany zdraví při práci a ochrany životního prostředí. Uvedené údaje odpovídají současnému stavu vědomostí a zkušeností a jsou v souladu s platnými právními předpisy. Nemohou být považovány za záruku vhodnosti a použitelnosti výrobku pro konkrétní aplikaci. Za zacházení podle existujících zákonů a nařízení odpovídá uživatel.