MATERIAL SAFETY DATA SHEET

in accordance with Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 (REACH), Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 and Comission Regulation (EU) No 2020/878 of 18 June 2020

Fragrance Zest spring CFB 12638

version No. EN 6

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IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING:

1.1.Product identifier:

MIXTURE IDENTIFICATION:	Fragrance, flavour, auto cosmetology, industrial and home chemistry
Trade name	Fragrance Zest spring CFB 12638
Product number	12638
E-MAIL OF THE SUPPLIER:	office@aromaukraine.com

1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST:

RECOMMENDED USE:	Aromatic ingredient for household chemicals and cosmetics. Manufacturing use only, not for direct consumption as such.
USES ADVISED AGAINST:	Do not use in food.

1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET:

COMPETENT PERSON RESPONSIBLE FOR THE MATERIAL SAFETY DATA SHEET:	“Aroma Ukraine” Ltd.
ADDRESS OF THE SUPPLIER:	Ukraine, 54018, Mykolaiv; Bogoyavlensky Avenue, 47, off. 3
TELEPHONE NUMBER OF THE SUPPLIER:	+38 (0512) 56-23-28

1.4. EMERGENCY CONTACTS:

IN CASE OF INTOXINCATION:	"LATVIA - State fire and rescue service: (+371) 112; (+371) 113; The national poison information center: +371 67042468; GERMANY - International emergency number: +49 180 2273-112. Transport Emergency phone number: (24 h service), phone: +49 621 60-43333; UNITED KINGDOM - National Poisons Information Service (24 h service), phone: +44 (0) 844-892-0111 (UK only); FRANCE - INRS FRANCE: phone: +33 (0)1 45 42 59-59. CZECH REPUBLIC – Klinika p aovního lékařství VFN a 1. LF UK, Na Bojišti 1, 120 00, Praha 2 224 91 92 93, 224 91 54 02 (nepřet žitě) FOR OTHER EU COUNTRIES, please consult: http://echa.europa.eu/help/nationalhelp_contact_en.asp"

SECTION 2 - HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Classification according to regulation (EC) No 1272/2008 (CLP)

Product definition	Mixture
H412	Aquatic Chronic 3
H317	Skin Sens. 1

Please refer to section 16 for details.

2.2. LABEL ELEMENTS

Labelling according to Regulation (EC) (CLP)

Hazardous substances:

Hazard pictograms:



Signal word	Warning
Hazard statements	
H412	Harmful to aquatic life with long lasting effects.
H317	May cause an allergic skin reaction.

Precautionary statements (Prevention and Intervention)

P273	Avoid release to the environment.
P261	Avoid breathing dust/fumes/gas/mist/vapours/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
2.3. OTHER HAZARDS	No data available

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.1 SUBSTANCES:	Mixture of natural, nature identical and synthetic aromatic products.
3.2 MIXTURES:	Mixture of natural and synthetic aromatic ingredients.

3.2 Hazardous components:

INGREDIENTS	%	CAS No. / EC No. Index No. / REACH No.	Classification REGULATION (EC) No 1272/2008
Propylene Glycol (IUPAC: PROPANE-1,2-DIOL)	<28%	CAS No. 57-55-6 EC No. 200-338-0 Index No. REACH No.01-2119456809-23-xxxx	
Undecavertol (IUPAC: (3E)-4-METHYLDEC-3-EN-5-OL)	<3,2%	CAS No. 81782-77-6 EC No. 279-815-0 Index No. REACH No.01-2119983528-21-xxxx	Aquatic Acute 1:H400 M=1
Benzyl Acetate (IUPAC: BENZYL ACETATE)	<3,2%	CAS No. 140-11-4 EC No. 205-399-7 Index No. REACH No.01-2119638272-42-xxxx	Aquatic Chronic 3 :H412
Verdox (OTBCH Acetate) (IUPAC: (1S,2S)-2-TERT-BUTYLCYCLOHEXYL ACETATE)	<2,31%	CAS No. 88-41-5 20298-69-5 EC No. 243-718-1 Index No. REACH No.	Aquatic Chronic 2:H411
Cyclamen Aldehyde (IUPAC: 2-METHYL-3-[4-(PROPAN-2-YL)PHENYL]PROPANAL)	<2,22%	CAS No. 103-95-7 EC No. 203-161-7 Index No. REACH No.01-2119970582-32-xxxx	Skin Sens. 1B:H317 Skin Irrit. 2:H315 Aquatic Chronic 3 :H412 M Chr=1
D-Limonene (IUPAC: (4R)-1-METHYL-4-(PROP-1-EN-2-YL)CYCLOHEX-1-ENE)	<1,76%	CAS No. 5989-27-5 8028-48-6 EC No. 227-813-5 Index No.601-096-00-2 REACH No.01-2119529223-47-xxxx	Flam. Liq. 3:H226 Skin Sens. 1B:H317 Skin Irrit. 2:H315 Aquatic Acute 1:H400 Asp. Tox. 1 :H304 Aquatic Chronic 3 :H412 M=1
Diethyl Malonate (IUPAC: 1,3-DIETHYL PROPANEDIOATE)	<1,6%	CAS No. 105-53-3 EC No. 203-305-9 Index No. REACH No.01-2119886972-18-xxxx	Skin Irrit. 2:H315 Eye Irrit. 2:H319 STOT SE 3 (H335):H335

Florol (IUPAC: 2-(ISOBUTYL)-4-HYDROXY-4-METHYL TETRAHYDROPYRAN)	<1,22%	CAS No. 63500-71-0 EC No. 405-040-6 Index No. REACH No.	Eye Irrit. 2:H319
Isoamyl Isovalerate (IUPAC: 3-METHYLBUTYL 3-METHYLBUTANOATE)	<1,12%	CAS No. 659-70-1 EC No. 211-536-1 Index No. REACH No.01-2120105228-66-xxxx	Aquatic Chronic 2:H411
Trivertal (IUPAC: 1,2-DIMETHYLCYCLOHEX-3-ENE-1-CARBALDEHYDE)	<0,98%	CAS No. 27939-60-2 68039-49-6 EC No. 248-742-6 Index No. REACH No.01-2120766006-57-xxxx	Aquatic Chronic 2:H411 Skin Sens. 1B:H317 Skin Irrit. 2:H315 Eye Irrit. 2:H319
Hexyl Cinnamic Aldehyde Alpha (IUPAC: (2E)-2-(PHENYLMETHYLIDENE)OCTANAL)	<0,96%	CAS No. 101-86-0 165184-98-5 EC No. 202-983-3 Index No. REACH No.01-2119533092-50-xxxx	Aquatic Chronic 2:H411 Skin Sens. 1:H317 Aquatic Acute 1:H400 M=1 M Chr=1
Allyl Heptanoate (IUPAC: PROP-2-EN-1-YL HEPTANOATE)	<0,96%	CAS No. 142-19-8 EC No. 205-527-1 Index No. REACH No.01-2119488961-23-xxxx	Aquatic Chronic 2:H411 Acute Tox. 3 SKIN:H311 Aquatic Acute 1:H400 Acute Tox. 3 ORAL:H301 M=10
Musk 50 IPM (IUPAC: 4,6,6,7,8,8-HEXAMETHYL-1H,3H,4H,6H,7H,8H-INDENO[5,6-C]PYRAN)	<0,8%	CAS No. 1222-05-5 EC No. 214-946-9 Index No.603-212-00-7 REACH No.01-2119488227-29-xxxx	Aquatic Chronic 1:H410 Aquatic Acute 1:H400 M Chr=1
Isoamyl Acetate (IUPAC: 3-METHYLBUTYL ACETATE)	<0,48%	CAS No. 123-92-2 EC No. 204-662-3 Index No. REACH No.01-2119548408-32-xxxx	Flam. Liq. 3:H226
Melonal (IUPAC: 2,6-DIMETHYLHEPT-5-ENAL)	<0,48%	CAS No. 106-72-9 EC No. 203-427-2 Index No. REACH No.01-2120270305-62-xxxx	Skin Sens. 1B:H317
Linalool (IUPAC: 3,7-DIMETHYLOCTA-1,6-DIEN-3-OL)	<0,48%	CAS No. 78-70-6 EC No. 201-134-4 Index No.603-235-00-2 REACH No.01-2119474016-42-xxxx	Skin Sens. 1B:H317 Skin Irrit. 2:H315 Eye Irrit. 2:H319
Vertenex (PTBCH Acetate) (IUPAC: 4-TERT-BUTYLCYCLOHEXYL ACETATE)	<0,32%	CAS No. 32210-23-4 EC No. 250-954-9 Index No. REACH No.01-2119976286-24-xxxx	Skin Sens. 1B:H317
Fixolide (Kevolid, Tonalid) (IUPAC: 1-(3,5,5,6,8,8-HEXAMETHYL-5,6,7,8-TETRAHYDRONAPHTHALEN-2-YL)ETHAN-1-ONE)	<0,32%	CAS No. 21145-77-7 1506-02-1 EC No. 244-240-6/216-1 Index No. REACH No.01-2119539433-40-xxxx	Aquatic Chronic 1:H410 Acute Tox. 4 ORAL H302 :H302 Aquatic Acute 1:H400 M=1
Geraniol Fine 98% (IUPAC: (2E)-3,7-DIMETHYLOCTA-2,6-DIEN-1-OL)	<0,16%	CAS No. 106-24-1 EC No. 203-377-1 Index No.603-241-00-5 REACH No.01-2119552430-49-xxxx	Skin Sens. 1:H317 Skin Irrit. 2:H315 Eye Dam. 1 :H318
Allyl Amyl Glycolate (IUPAC: PROP-2-EN-1-YL 2-(3-METHYLBUTOXY)ACETATE)	<0,16%	CAS No. 67634-00-8 EC No. 266-803-5 Index No. REACH No.01-2120795456-39-xxxx	Aquatic Chronic 1:H410 Acute Tox. 4 ORAL H302 :H302 Aquatic Acute 1:H400 Acute Tox. 2 INHALATION:H330 M=1 M Chr=1
Ethyl Acetate (IUPAC: ETHYL ACETATE)	<0,16%	CAS No. 141-78-6 EC No. 205-500-4 Index No. REACH No.01-2119475103-46-xxxx	Eye Irrit. 2:H319 Flam. Liq. 2:H225 STOT SE 3 (H336):H336
Terpinene-4-ol (IUPAC: 4-METHYL-1-(PROPAN-2-YL)CYCLOHEX-3-EN-1-OL)	<0,16%	CAS No. 562-74-3 EC No. 209-235-5 Index No. REACH No.01-2120748638-40-xxxx	Skin Sens. 1:H317 Acute Tox. 4 ORAL H302 :H302 Skin Irrit. 2:H315 Eye Irrit. 2:H319 Acute Tox. 4 INHALATION:H332 STOT SE 3 (H336):H336

Dipropylene Glycol (IUPAC: 1,1'-OXY DI-2-PROPANOL)	<0,14%	CAS No. 25265-71-8 EC No. 246-770-3 Index No. REACH No.01-2119456811-38-0088	
BHT (IUPAC: 2,6-DI-TERT-BUTYL-4-METHYLPHENOL)	<0,1%	CAS No. 128-37-0 EC No. 204-881-4 Index No. REACH No. 01-2119555270-46-0000	Aquatic Chronic 1:H410 M Chr=1

SECTION 4 - FIRST-AID MEASURES

Inhalation	Move affected person to fresh air at once. Get medical attention if any discomfort continues
Ingestion	Rinse mouth thoroughly with water. Give plenty of water to drink. Get medical attention immediately.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if symptoms are severe or persist after washing.
Eye contact	Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

General information	Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. See Section 11 for additional information on health hazards.

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

Notes for the doctor No specific recommendations.

SECTION 5 - FIRE-FIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media	Extinguish with the following media: Foam, carbon dioxide or dry powder.
Unsuitable extinguishing media	Water.

5.2. Special hazards arising from the substance or mixture

Specific hazards	Toxic gases or vapours

5.3. Advice for firefighters

Protective actions during firefighting	Containers close to fire should be removed or cooled with water.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots,clothing or apron, as appropriate. No smoking, sparks, flames or other sources of ignition near spillage. Look section 13

6.2. Environmental precautions

Environmental precautions	Do not discharge into drains or watercourses or onto the ground.
6.4. Reference to other sections	8; 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions	Wear protective clothing as described in Section 8 of this safety data sheet. Avoid contact with skin, eyes and clothing.

Advice on general occupational hygiene	Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions	Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep away from heat, sparks and open flame. Protect from freezing and direct sunlight. Storage temperature: from 0 to 30 °C
7.3. Specific end use(s)	See sections 1 and 2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

INGREDIENT	CAS №	TWA, 8 hours
Propylene Glycol (IUPAC: PROPAN	57-55-6	TWA= 7* mg/m³
Isoamyl Acetate (IUPAC: 3-METHY	123-92-2	TWA= 270* mg/m³
Ethyl Acetate (IUPAC: ETHYL ACE	141-78-6	TWA= 200* mg/m³
Benzyl Acetate (IUPAC: BENZYL A	140-11-4	TWA= 5* mg/m³

ADDITIONAL INFORMATION: Information valid at the time of review of safety data sheet.

8.2. EXPOSURE CONTROLS:

ENGINEERING MEASURES: Comply with standard precautionary measures for working with chemicals. See Directive 2004/37/EG on the protection of workers from the risks related to exposure to carcinogens or mutagens at work. HYGIENIC MEASURES: When using do not eat, drink or smoke.

GENERAL PROTECTIVE AND HYGIENIC MEASURES:	Avoid contact with the eyes. Wash hands during work breaks and at the end of the shift. Provide skin protection plan.
RESPIRATORY PROTECTION:	Avoid excessive inhalation of concentrated vapors. Ensure adequate ventilation. If workers are exposed to high concentrations, they must use appropriate, certified respirators. Wear suitable respiratory protection in case of large scale exposure. Suitable facemask in accordance with EN 140.
BODY PROTECTION:	Protective clothing. Safety showers should be available in the immediate vicinity of any potential exposure. Wear appropriate protective clothing, overalls or suit, and similar boots in accordance with EN 365/367.
EYE PROTECTION:	Wear appropriate safety glasses with side shields, in accordance with EN 166, when there is danger of possible eye contact. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.
Hygiene measures	No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.
HAND PROTECTION:	Chemical protective gloves according to DIN EN 374 with CE-labelling. Suitable material - nitril. 0.13 mm. Indication of permeation breakthrough time – 1 hour. Check the condition of protective gloves after each use for any damages like holes, cuts or tears. Do not wear protective gloves longer than necessary. After use of gloves apply skin-cleaning agents and skin cosmetics. Gloves for mechanical protection do not provide protection against chemicals.

RISK MANAGEMENT MEASURES:	The operators shall be instructed adequately. The workplace shall be inspected regularly by competent personnel e.g. the safety representative.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Homogeneous transparent liquid , opalescence is allowed.
Colour:	From colorless to brown
Odour:	Fragrance description
Freezing point:	< 0 °C
Boiling point, °C:	No data available
Explosion	Not explosive
Combustibility	It doesn't burn
Lower and upper explosive limits:	Not explosive
Flash point:	It doesn't burn
Autoignition temperature:	No spontaneous combustion
Decomposition temperature:	No data available
pH:	Not stable
Kinematic viscosity:	No data available
Solubility in alcohol:	Soluble
Solubility in water:	Limited solubility
Partition coefficient n octanol/water (log mean):	No data available
Steam pressure	No data available
Density, 20 °C:	0.9 – 1.6 g/cm³
Relative vapor density:	No data available
flammability:	Non-flammable
Part characteristics	No

9.2. OTHER INFORMATION: No data available

SECTION 10: STABILITY AND REACTIVITY

10.1. REACTIVITY:	The product is stable and relatively inert under normal conditions of use, storage and transport.
10.2. CHEMICAL STABILITY:	Under the conditions of use specified in Section 7, the product is stable.
10.3. POSSIBILITY OF HAZARDOUS REACTION:	Under normal conditions of use, there is no information on dangerous reactions.
10.4. CONDITIONS TO AVOID:	Contact with incompatible materials.
10.5. INCOMPATIBLE MATERIALS:	Strong acids, strong bases, strong oxidants.
10.6. HAZARDOUS DECOMPOSITION PRODUCTS:	No decomposition product of storage and handling conditions are followed. In case of fire, hazardous gases may form.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

INHALATION

Acute toxicity:	Calculated ATEmix (LC50)= 94,68 mg/l. Ingredients of unknown toxicity>10%: 96,3 %.Not classified
Corrosion/irritation:	Does not have any classifiable toxicity.
Sensitisation:	Classified as Sensitisation — Skin, hazard category 1.
Carcinogenicity:	Does not have any classifiable toxicity.
Mutagenicity:	Does not have any classifiable toxicity.

SKIN CONTACT:

Acute toxicity:	Calculated ATEmix (LD50)= ATEmix>30000 mg/kg. Ingredients of unknown toxicity>10%: 57,16 %.Not classified

Corrosion/irritation: Does not have any classifiable toxicity.
Sensitisation: Classified as Sensitisation — Skin, hazard category 1.
Carcinogenicity: Does not have any classifiable toxicity.
Mutagenicity: Does not have any classifiable toxicity.

EYE CONTACT:

Corrosion/irritation: Does not have any classifiable toxicity.

INGESTION:

Acute toxicity: Calculated ATEmix (LD50) = 8 699,44 mg/kg. Ingredients of unknown toxicity>10%: 54,45 %.Not classified
Corrosion/irritation: Does not have any classifiable toxicity.
Sensitisation: Classified as Sensitisation — Skin, hazard category 1.
Carcinogenicity: Does not have any classifiable toxicity.
Mutagenicity: Does not have any classifiable toxicity.
Reprotoxicity: Does not have any classifiable toxicity.

Toxicological information:

Ingredients Name:	**CAS No.**	**LD50 (oral)**	**LD50 (Dermal)**	**LC50 (Inhalation)**
Propylene Glycol (IUPAC: PROPANE-1,2-DIOL)	57-55-6	50 000 mg/kg	208 000 mg/kg	No data
Benzyl Acetate (IUPAC: BENZYL ACETATE)	140-11-4	2 000 mg/kg	No data	No data
Verdox (OTBCH Acetate) (IUPAC: (1S,2S)-2-TERT-BUTYLCYCLOHEXYL ACETATE)	88-41-5 20298-69-5	4 600 mg/kg bw	>5 000 mg/kg	No data
Cyclamen Aldehyde (IUPAC: 2-METHYL-3-[4-(PROPAN-2-YL)PHENYL]PROPANAL)	103-95-7	2 000 mg/kg	No data	No data
D-Limonene (IUPAC: (4R)-1-METHYL-4-(PROP-1-EN-2-YL)CYCLOHEX-1-ENE)	5989-27-5 8028-48-6	2 000 mg/kg bw	>5 mg/kg	No data
Diethyl Malonate (IUPAC: 1,3-DIETHYL PROPANEDIOATE)	105-53-3	15 794 mg/kg	16 960 mg/kg	No data
Florol (IUPAC: 2-(ISOBUTYL)-4-HYDROXY-4-METHYL TETRAHYDROPYRAN)	63500-71-0	2 000 mg/kg bw	2 000 mg/kg bw	No data

Isoamyl Isovalerate (IUPAC: 3-METHYLBUTYL 3-METHYLBUTANOATE)	659-70-1	5 000 mg/kg	>2 000 mg/kg	No data
Trivertal (IUPAC: 1,2-DIMETHYLCYCLOHEX-3-ENE-1-CARBALDEHYDE)	27939-60-2 68039-49-6	4 615 mg/kg	>5 000 gm/kg	No data
Hexyl Cinnamic Aldehyde Alpha (IUPAC: (2E)-2-(PHENYLMETHYLIDENE)OCTANAL)	101-86-0 165184-98-5	3 100 mg/kg	3 000 mg/kg	3,56 mg/l
Allyl Heptanoate (IUPAC: PROP-2-EN-1-YL HEPTANOATE)	142-19-8	218 mg/kg	810 mg/kg	No data
Musk 50 IPM (IUPAC: 4,6,6,7,8,8-HEXAMETHYL-1H,3H,4H,6H,7H,8H-INDENO[5,6-C]PYRAN)	1222-05-5	No data	>3 250 mg/kg	No data
Isoamyl Acetate (IUPAC: 3-METHYLBUTYL ACETATE)	123-92-2	7 400 mg/kg	No data	No data
Linalool (IUPAC: 3,7-DIMETHYLOCTA-1,6-DIEN-3-OL)	78-70-6	2 790 mg/kg	5 610 mg/kg	3 200 mL/kg bw
Fixolide (Kevolid, Tonalid) (IUPAC: 1-(3,5,5,6,8,8-HEXAMETHYL-5,6,7,8-TETRAHYDRONAPHTHALEN-2-YL)ETHAN-1-ONE)	21145-77-7 1506-02-1	920 mg/kg	7 940 mg/kg	No data
Geraniol Fine 98% (IUPAC: (2E)-3,7-DIMETHYLOCTA-2,6-DIEN-1-OL)	106-24-1	3 600 mg/kg	>5 gm/kg	No data
Allyl Amyl Glycolate (IUPAC: PROP-2-EN-1-YL 2-(3-METHYLBUTOXY)ACETATE)	67634-00-8	500 mg/kg	2 000 mg/kg	No data
Ethyl Acetate (IUPAC: ETHYL ACETATE)	141-78-6	4 934 mg/kg	20 000 mg/kg	No data

Terpinene-4-ol (IUPAC: 4-METHYL-1-(PROPAN-2-YL)CYCLOHEX-3-EN-1-OL)	562-74-3	1 016 mg/kg	>2 500 mg/kg	No data
Dipropylene Glycol (IUPAC: 1,1'-OXYDI-2-PROPANOL)	25265-71-8	5 000 mg/kg bw	5 000 mg/kg bw	>>2,34 mg/l
BHT (IUPAC: 2,6-DI-TERT-BUTYL-4-METHYLPHENOL)	128-37-0	6 000 mg/kg bw	>2 000 mg/kg bw	No data

11.2. PRIMARY IRRITANT EFFECT: Does not have any classifiable toxicity

11.2.1 ENDOCRINE DISRUPTING PROPERTIES: Musk 50 IPM (IUPAC: 4,6,6,7,8,8-HEXAMETHYL-1H,3H,4H,6H,7H,8H-INDENOPYRAN),Fixolide (Kevolid, Tonalid) (IUPAC: 1-(3,5,5,6,8,8-HEXAMETHYL-5,6,7,8-TETRAHYDRONAPHTHALEN-2-YL)ETHAN-1-ONE),BHT (IUPAC: 2,6-DI-TERT-BUTYL-4-METHYLPHENOL)

11.3. SENSITISATION: Classified as Sensitisation — Skin, hazard category 1.

11.4 CHRONIC EFFECT: Classified as Hazardous to the aquatic environment — Chronic Category 3.

11.5 TARGET ORGANS: Does not have any classifiable toxicity.

11.6. CARCINOGENICITY: Does not have any classifiable toxicity.

11.7. MUTAGENICITY: Does not have any classifiable toxicity.

11.8. REPROTOXICITY: Does not have any classifiable toxicity.

SECTION 12: ECOLOGICAL INFORMATION

12.1. TOXICITY:

Acute: Does not have any classifiable toxicity.

Chronic: Classified as Hazardous to the aquatic environment — Chronic Category 3.

Ingredients Toxicity:

AQUATIC TOXICITY:

Propylene Glycol (IUPAC: PROPANE-1,2-DIOL)	
57-55-6	
EC50/72H	21,75 g/l(Algae)
EC50/48 H	26,55 g/l(Algae)
LC50/48 H	18,34 g/l(Aquatic invertebrates)
LC50/96 H	18,8 g/l(Aquatic invertebrates)
Undecavertol (IUPAC: (3E)-4-METHYLDEC-3-EN-5-OL)	
81782-77-6	
EC50/72H	3,6 mg/l(Algae)
EC50/96 H	3,8 mg/l(Algae)
Benzyl Acetate (IUPAC: BENZYL ACETATE)	
140-11-4	
EC50/72H	101 mg/l(Algae)
EC50/48 H	17 mg/l(Aquatic invertebrates)
LC50/96 H	4 mg/l(Fish)
Cyclamen Aldehyde (IUPAC: 2-METHYL-3-[4-(PROPAN-2-YL)PHENYL]PROPANAL)	
103-95-7	
EC50/72H	2,7 mg/l(Algae)
EC50/96 H	2,7 mg/l(Algae)

EC50/48 H	1,4 mg/l(Aquatic invertebrates)
LC50/96 H	1,092 mg/l(Fish)
D-Limonene (IUPAC: (4R)-1-METHYL-4-(PROP-1-EN-2-YL)CYCLOHEX-1-ENE)	
5989-27-5 8028-48-6	
EC50/72H	320 mg/l(Aquatic algae and cyanoba)
EC50/48 H	250 mg/l(Aquatic algae and cyanoba)
EC50/48 H	250 (Algae)
EC50/48 H	510 mg/l(Aquatic invertebrates)
EC50/48 H	408,5 mg/l(Aquatic invertebrates)
EC50/24H	840 mg/l(Aquatic invertebrates)
EC50/21days	188 mg/l(Aquatic invertebrates)
LC50/96 H	720 mg/l(Fish)
EC50/96 H	702 mg/l(Fish)
LC50/96 H	590 mg/l(Fish)
EC50/96 H	695 (Fish)
Diethyl Malonate (IUPAC: 1,3-DIETHYL PROPANEDIOATE)	
105-53-3	
EC50/72H	800 mg/l(Aquatic algae and cyanoba)
EC50/48 H	202,3 mg/l(Aquatic invertebrates)
EC50/24H	285,8 mg/l(Aquatic invertebrates)
LC50/96 H	17,4 mg/l(Fish)
EC50/96 H	16,8 mg/l(Fish)
Florol (IUPAC: 2-(ISOBUTYL)-4-HYDROXY-4-METHYL TETRAHYDROPYRAN)	
63500-71-0	
EC50/72H	100 mg/l(Algae)
EC50/48 H	320 mg/l(Aquatic invertebrates)
Isoamyl Isovalerate (IUPAC: 3-METHYLBUTYL 3-METHYLBUTANOATE)	
659-70-1	
EC50/72H	5,11 mg/l(Algae)
EC50/48 H	6,1 mg/l(Aquatic invertebrates)
LC50/96 H	3,47 mg/l(Fish)
Trivertal (IUPAC: 1,2-DIMETHYLCYCLOHEX-3-ENE-1-CARBALDEHYDE)	
27939-60-2 68039-49-6	
EC50/72H	22,8 mg/l(Algae)
EC50/48 H	7,74 mg/l(Aquatic invertebrates)
LC50/96 H	15 mg/l(Fish)
Hexyl Cinnamic Aldehyde Alpha (IUPAC: (2E)-2-(PHENYLMETHYLIDENE)OCTANAL)	
101-86-0 165184-98-5	
EC50/72H	65 (Algae)
EC50/48 H	475 (Aquatic invertebrates)
LC50/96 H	1,7 mg/l(Fish)
Allyl Heptanoate (IUPAC: PROP-2-EN-1-YL HEPTANOATE)	
142-19-8	
EC50/72H	778 (Algae)
EC50/48 H	890 (Aquatic invertebrates)
LC50/96 H	117 (Fish)
LC50/72H	117 (Fish)
LC50/48 H	117 (Fish)
LC50/24H	201 (Fish)

Musk 50 IPM (IUPAC: 4,6,6,7,8,8-HEXAMETHYL-1H,3H,4H,6H,7H,8H-INDENO[5,6-C]PYRAN)	
1222-05-5	
EC50/72H	854 µg/L(Aquatic algae and cyanoba)
EC50/48 H	300 µg/L(Aquatic invertebrates)
LC50/96 H	950 µg/L(Fish)
Isoamyl Acetate (IUPAC: 3-METHYLBUTYL ACETATE)	
123-92-2	
EC50/48 H	42 mg/l(Aquatic invertebrates)
LC50/96 H	34 mg/l(Fish)
Melonal (IUPAC: 2,6-DIMETHYLHEPT-5-ENAL)	
106-72-9	
EC50/96 H	4,3 mg/l(Aquatic algae and cyanoba)
EC50/48 H	2,4 mg/l(Aquatic invertebrates)
LC50/96 H	2,288 mg/l(Fish)
Linalool (IUPAC: 3,7-DIMETHYLOCTA-1,6-DIEN-3-OL)	
78-70-6	
EC50/96 H	122,5 mg/l(Algae)
EC50/96 H	59 mg/l(Aquatic invertebrates)
LC50/96 H	27,8 mg/l(Fish)
LC50/72H	27,8 mg/l(Fish)
LC50/48 H	27,8 mg/l(Fish)
Vertenex (PTBCH Acetate) (IUPAC: 4-TERT-BUTYLCYCLOHEXYL ACETATE)	
32210-23-4	
EC50/72H	22 mg/l(Algae)
EC50/48 H	5,3 mg/l(Aquatic invertebrates)
LC50/96 H	8,6 mg/l(Fish)
Fixolide (Kevolid, Tonalid) (IUPAC: 1-(3,5,5,6,8,8-HEXAMETHYL-5,6,7,8-TETRAHYDRONAPHTHALEN-2-YL)ETHAN-1-ONE)	
21145-77-7 1506-02-1	
EC50/72H	625 µg/L(Aquatic algae and cyanoba)
EC50/72H	800 µg/L(Aquatic invertebrates)
LC50/96 H	1,49 mg/l(Fish)
Geraniol Fine 98% (IUPAC: (2E)-3,7-DIMETHYLOCTA-2,6-DIEN-1-OL)	
106-24-1	
LC50/96 H	22 mg/l(Zebra(fish))
EC50/72H	13,1 mg/l(Desmodesmus subspicatus)
EC50/48 H	10,8 mg/l(Daphnia magna)
Allyl Amyl Glycolate (IUPAC: PROP-2-EN-1-YL 2-(3-METHYLBUTOXY)ACETATE)	
67634-00-8	
EC50/96 H	2,06 mg/l(Aquatic algae and cyanoba)
LC50/48 H	5,09 mg/l(Aquatic invertebrates)
LC50/96 H	768 µg/L(Fish)
Ethyl Acetate (IUPAC: ETHYL ACETATE)	
141-78-6	
EC50/48 H	5,6 g/l(Algae)
LC50/96 H	230 mg/l(Fish)
EC50/96 H	220 mg/l(Fish)
Dipropylene Glycol (IUPAC: 1,1'-OXY DI-2-PROPANOL)	
25265-71-8	

EC50/72H	100 mg/l(Algae)
EC50/48 H	100 mg/l(Aquatic invertebrates)
LC50/96 H	5 000 mg/l(Fish)
BHT (IUPAC: 2,6-DI-TERT-BUTYL-4-METHYLPHENOL)	
128-37-0	
EC50/72H	5 120 µg/L(Algae)
EC50/96 H	758 µg/L(Algae)
LC50/96 H	384,5 µg/L(Fish)

12.2. PERSISTENCE AND DEGRADABILITY: May cause long-term adverse effects in the aquatic environment.

ASSESSMENT BIODEGRADATION AND ELIMINATION: No data available

12.3. BIOACCUMULATIVE POTENTIAL: No further relevant information available. Low potential for bioaccumulation: logPow>4 (log Powcalculated = 55,633)

INGREDIENT	CAS №	Partition Coefficient
Dipropylene Glycol (IUPAC: 1,1'-OXY I	25265-71-8	0,0035
Propylene Glycol (IUPAC: PROPANE-1	57-55-6	0,6748

12.4. MOBILITY IN SOIL: No data available

GENERAL NOTES:

12.5. RESULTS OF PBT UN vPvB ASSESSMENT: This mixture does not contain substances that meet the PBT or vPvB criteria of REACH, annex XIII.

12.6. ENDOCRINE DISRUPTING PROPERTIES: Musk 50 IPM (IUPAC: 4,6,6,7,8,8-HEXAMETHYL-1H,3H,4H,6H,7H,8H-INDENO PYRAN),Fixolide (Kevolid, Tonalid) (IUPAC: 1-(3,5,5,6,8,8-HEXAMETHYL-5,6,7,8-TETRAHYDRONAPH THALEN-2-YL)ETHAN-1-ONE),BHT (IUPAC: 2,6-DI-TERT-BUTYL-4-METHYLPHENOL)

12.7. OTHER ADVERSE EFFECTS:

Global Warming Potential: Do not may contribute to the greenhouse effect.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. WASTE TREATMENT METHODS:

Dispose of in accordance with local and national regulations.

Product residues: Do not pour residues into the municipal sewage system.

Additional warning: None.

European waste catalogue: Dispose of according to directives: 2008/98/ES; 94/62/ES ; 2014/955/EU; 2008/98/ES .

EUROPEAN WASTE CATALOGUE	
EWC CODE	Description
07	Wastes from organic chemical processes:
07 07	wastes from the MFSU of fine chemicals and chemical products not otherwise specified
07 07 99	wastes not otherwise specified
15 02 02*	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances

CONTAMINATED PACKAGING: Hand over the packaging left after use to the person responsible for the disposal of hazardous waste.

RECOMMENDATION: Avoid release to the environment.

SECTION 14. TRANSPORT INFORMATION:

14.1. UN number: UN 3082

14.2. UN proper shipping name: UN 3082 Environmentally hazardous substance, liquid, N.O.S.

14.3. TRANSPORT HAZARD CLASS (ES): ADR, IATA, IMDG CLASS	9
DANGER LABEL:	9
14.4. PACKING GROUP: ADR, IATA, IMD	III
14.5. ENVIRONMENTAL HAZARDS: MARINE POLLUTANT	Yes
14.6. SPECIAL PRECAUTIONS FOR USER:	Read MSDS and emergency procedures before handling
14.7. TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE:	Not established. Packaged liquids are not considered bulk.

SECTION 15: REGULATORY INFORMATION

15.1. SAFETY, HEALTH AND ENVIROMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THESUBSTANCE OR MIXTURE:	REGULATION (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC. DIRECTIVE 2006/11/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 15 February 2006 on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community. REGULATION (EC) No 1272/2008 (CLP) of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. Directive 2008/98/EC of the European Parliament and of the Council on waste and on the repeal of certain Directives. Directive 94/62/EC of the European Parliament and of the Council on packaging and packaging waste. Commission Decision 2014/955/EU amending Decision 2000/532/EC on the list of wastes pursuant to Directive of the European Parliament and of the Council 2008/98/EC (EU Waste Catalogue)
INFORMATION ABOUT LIMITATION OF USE:	Take note of Directive 94/33/EC on the protection of young people at work. Take note of Directive 92/85/EC on the safety and health of pregnant women at work.
15.2. CHEMICAL SAFETY ASSESSMENT:	Not applicable.

Full text of the classifications, including the indication of danger, the hazard symbols and the hazard statements, mentioned in section 2 or 3:

Revisions are mentionned by a black stroke in left margin.

ABBREVIATIONS AND ACRONYMS:

PBT:	Persistent, bioaccumulative, toxic
vPvB:	Very persistent, very bioaccumulative

EC:	European Inventory of Existing Commercial Chemical Substances
CAS:	Chemical Abstracts Service (division of the American Chemical Society)
ADR:	European Agreement concerning the International Carriage of Dangerous Goods
IATA:	International Air Transport Association
IMDG:	International Maritime Code for Dangerous Goods
LC50:	Median (50 %) lethal concentration
LD50:	Median (50%) lethal dose
EC50:	Effective concentration, 50 percent
CLP:	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and Mixtures
ECHA:	European Chemicals Agency, Helsinki (http://echa.europa.eu/home_en.asp)
TWA:	Time Weighted Average
IBC code:	International Bulk Chemical Code
MARPOL:	International Convention for the Prevention of Pollution From Ships
REACH:	Registration, Evaluation, Authorisation and Restriction of Chemicals
UN:	United Nations
ATE:	Acute Toxicity Estimate
DNEL	Derived No-Effect Level
PNEC	Predicted No-Effect Concentration

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