



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 Commission Regulation (EU) No 2020/878 of 18 June 2020

Fragrance Toasted Pumpkin Spice DBB 83278

version No. EN 6

date of update: 08.09.2025

print: 04.03.2026

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 Toasted Pumpkin Spice DBB 83278
Product number: 83278
UFI Code: 79C1-22F0-K00M-1YKR
E-MAIL OF THE SUPPLIER: info@aromanova.de

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 Nova GmbH

ADDRESS OF THE SUPPLIER: Germany, 96114, Hirschaid, Löserstrasse, 4 Einheit 052-045
TELEPHONE NUMBER OF THE SUPPLIER: + 49(0) 17684916016

1.4. EMERGENCY CONTACTS:

IN CASE OF INTOXICATION: "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 pro aorního 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
H411	Aquatic Chronic 2
H302	Acute Tox. 4
H317	Skin Sens. 1
H350	Carc. 1B
H315	Skin Irrit. 2
H319	Eye Irrit. 2

Please refer to section 16 for details.

2.2. LABEL ELEMENTS

Labelling according to Regulation (EC) (CLP)

Hazardous substances:

Hazard pictograms:



Signal word

Danger

Hazard statements

H411	Toxic to aquatic life with long lasting effects.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H350	May cause cancer
H315	Causes skin irritation.
H319	Causes serious eye irritation.

Precautionary statements (Prevention and Intervention)

P273	Avoid release to the environment.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
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.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P281	[Deleted by IV ATP]
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
Benzyl Benzoate (IUPAC: BENZYL BENZOATE)	<68%	CAS No. 120-51-4 EC No. 204-402-9 Index No. REACH No.01-2119976371-33-xxxx	Aquatic Chronic 2:H411 Acute Tox. 4 ORAL H302 :H302
Cinnamic Aldehyde (IUPAC: (2E)-3-PHENYLPROP-2-EN AL)	<10,8%	CAS No. 104-55-2 EC No. 203-213-9 Index No. REACH No.01-2119935242-45-xxxx	Skin Sens. 1:H317 Skin Irrit. 2:H315 Eye Irrit. 2:H319 Aquatic Chronic 3 :H412
Ethyl Vanillin (IUPAC: 3-ETHOXY-4-HYDROXYBE NZALDEHYDE)	<3,2%	CAS No. 121-32-4 EC No. 204-464-7 Index No. REACH No.	Eye Irrit. 2:H319

Delta Decalactone (IUPAC: 6-HEPTYLOXAN-2-ONE)	<1,6%	CAS No. 705-86-2 713-95-1 EC No. 211-889-1 Index No. REACH No.01-2119947987-13-xxxx	Aquatic Chronic 2:H411
Vanillin (IUPAC: 4-HYDROXY-3-METHOXYBENZALDEHYDE)	<1,2%	CAS No. 121-33-5 EC No. 204-465-2 Index No. REACH No.01-2119516040-60-xxxx	Eye Irrit. 2:H319
Hercolyn D (IUPAC: HYDROGENATED METHYL ROSINATE)	<1,2%	CAS No. 8050-15-5/200359-25-7 EC No. 232-476-2 Index No. REACH No.01-2119969275-26-xxxx	Aquatic Chronic 3 :H412
Cinnamyl Acetate (IUPAC: (2E)-3-PHENYLPROP-2-EN-1-YL ACETATE)	<1%	CAS No. 103-54-8 EC No. 203-121-9 Index No. REACH No.	Skin Sens. 1:H317 Skin Irrit. 2:H315 Eye Irrit. 2:H319
Caryophyllene Beta-95% (IUPAC: (1R,4E,9S)-4,11,11-TRIMETHYL-8-METHYLIDENE BICYCLO[7.2.0]UNDEC-4-ENE)	<0,8%	CAS No. 87-44-5 13877-93-5 EC No. 201-746-1 Index No. REACH No.01-2120745237-53-xxxx	Skin Sens. 1B:H317 Asp. Tox. 1 :H304 Aquatic Chronic 3 :H412
Pinene Alpha (VIP) (IUPAC: 2,6,6-TRIMETHYLBICYCLO[3.1.1]HEPT-2-ENE)	<0,6%	CAS No. 80-56-8 7785-26-4 EC No. 201-291-9 Index No. REACH No.01-2119519223-49-0001	Aquatic Chronic 1:H410 Acute Tox. 4 ORAL H302 :H302 Flam. Liq. 3:H226 Skin Sens. 1B:H317 Skin Irrit. 2:H315 Aquatic Acute 1:H400 Asp. Tox. 1 :H304 M Chr=1
Methyl Cyclopentenolone (IUPAC: 2-HYDROXY-3-METHYLCYCLOPENT-2-EN-1-ONE)	<0,6%	CAS No. 765-70-8 80-71-7 EC No. 212-154-8 Index No. REACH No.	Skin Sens. 1:H317 Eye Dam. 1 :H318 Acute Tox. 4 INHALATION:H332
Eugenol (IUPAC: 2-METHOXY-4-(PROP-2-EN-1-YL)PHENOL)	<0,4%	CAS No. 97-53-0 EC No. 202-589-1 Index No. REACH No.01-2119971802-33-xxxx	Skin Sens. 1B:H317 Skin Irrit. 2:H315 Eye Irrit. 2:H319 Asp. Tox. 1 :H304
Cloves oil 100% pure and natural (IUPAC: CLOVE BUD OIL)	<0,4%	CAS No. 8000-34-8 EC No. 616-772-2 Index No. REACH No.	Skin Sens. 1:H317 Flam. Liq. 3:H226 Eye Irrit. 2:H319 Asp. Tox. 1 :H304
Pinene Beta (IUPAC: 6,6-DIMETHYL-2-METHYLENE BICYCLO[3.1.1]HEPTANE)	<0,4%	CAS No. 127-91-3 EC No. 204-872-5 Index No. REACH No.01-2119519230-54-xxxx	Aquatic Chronic 1:H410 Flam. Liq. 3:H226 Skin Sens. 1B:H317 Skin Irrit. 2:H315 Aquatic Acute 1:H400 Asp. Tox. 1 :H304 M=1
Methyl Cinnamate (IUPAC: METHYL (2E)-3-PHENYLPROP-2-ENOATE)	<0,4%	CAS No. 103-26-4 EC No. 203-093-8 Index No. REACH No.01-2119979458-16-xxxx	Skin Sens. 1B:H317
Cinnamon Bark Oil 70% (IUPAC: CINNAMOMUM VERUM BARK EXTRACT CEYLON)	<0,32%	CAS No. 8015-91-6 84649-98-9 EC No. 283-479-0 Index No. REACH No.01-2119487278-23-xxxx	Aquatic Chronic 2:H411 Skin Sens. 1:H317 Eye Irrit. 2:H319 Asp. Tox. 1 :H304
Methyl Cinnamic Aldehyde Alpha (IUPAC: (2E)-2-METHYL-3-PHENYLPROP-2-ENAL)	<0,28%	CAS No. 101-39-3 15174-47-7 EC No. 701-219-0 Index No. REACH No.	Aquatic Chronic 2:H411 Skin Sens. 1:H317 Aquatic Acute 1:H400
Anisyl Acetate (IUPAC: (4-METHOXYPHENYL)METHYL ACETATE)	<0,28%	CAS No. 104-21-2 EC No. 203-185-8 Index No. REACH No.01-2120104878-50-xxxx	Skin Sens. 1B:H317

Linalool (IUPAC: 3,7-DIMETHYLOCTA-1,6-DI EN-3-OL)	<0,28%	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
Eucaliptol (IUPAC: 1,3,3-TRIMETHYL-2-OXABI CYCLO[2.2.2]OCTANE)	<0,2%	CAS No. 470-82-6 EC No. 207-431-5 Index No. REACH No.01-2119967772-24-xxxx	Flam. Liq. 3:H226 Skin Sens. 1B:H317
D-Limonene (IUPAC: (4R)-1-METHYL-4-(PROP-1 -EN-2-YL)CYCLOHEX-1-EN E)	<0,2%	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
Isoeugenol (IUPAC: 2-METHOXY-4-(1-PROPEN YL)PHENOL)	<0,12%	CAS No. 97-54-1 5932-68-3 EC No. 202-590-7 Index No.604-094-00-X REACH No.	Acute Tox. 4 ORAL H302 :H302 Skin Irrit. 2:H315 Eye Irrit. 2:H319 STOT SE 3 (H335):H335 Acute Tox. 4 INHALATION:H332 Acute Tox. 4 SKIN:H312 Skin Sens. 1A :H317
Furaneol (IUPAC: 4-HYDROXY-2,5-DIMETHY L-2,3-DIHYDROFURAN-3- ONE)	<0,12%	CAS No. 3658-77-3 EC No. 222-908-8 Index No. REACH No.01-2120754473-52-xxxx	Skin Sens. 1:H317 Acute Tox. 4 ORAL H302 :H302 Eye Dam. 1 :H318 Skin Corr. 1B:H314
Benzoic Aldehyde (Benzaldehyde) (IUPAC: BENZALDEHYDE)	<0,12%	CAS No. 100-52-7 EC No. 202-860-4 Index No.605-012-00-5 REACH No. 01-2119455540-44-0000	Acute Tox. 4 ORAL H302 :H302
Nuez Moscada Oil (IUPAC: ESSENTIAL OIL EXTRACT OF MYRISTICA FRAGRANS (MYRISTICACEAE) SEED)	<0,12%	CAS No. 8008-45-5 84082-68-8 EC No. 282-013-3 Index No. REACH No.01-2119486669-15-xxxx	Aquatic Chronic 2:H411 Skin Sens. 1:H317 Flam. Liq. 3:H226 Asp. Tox. 1 :H304 Muta. 2 :H341 Carc. 1B :H350 M Chr=1
Terpinolene (IUPAC: 1-METHYL-4-(PROPAN-2-Y LIDENE)CYCLOHEX-1-EN E)	<0,12%	CAS No. 586-62-9 EC No. 209-578-0 Index No. REACH No.01-2119982325-32-xxxx	Aquatic Chronic 1:H410 Skin Sens. 1B:H317 Aquatic Acute 1:H400 Asp. Tox. 1 :H304 M=1
Acetyl Propionyl (2,3-Pentanedion) (IUPAC: PENTANE-2,3-DIONE)	<0,12%	CAS No. 600-14-6 EC No. Index No.209-984-8 REACH No.	Skin Sens. 1:H317 Skin Irrit. 2:H315 Flam. Liq. 2:H225 Eye Dam. 1 :H318 Acute Tox. 4 INHALATION:H332
BHT (IUPAC: 2,6-DI-TERT-BUTYL-4-MET HYLPHENOL)	<0,08%	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 No	TWA, 8 hours
Benzoic Aldehyde (Benzaldehyde)	100-52-7	TWA= 5* mg/m ³

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/cm ³
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)= 83,74 mg/l. Ingredients of unknown toxicity>10%: 87,64 %.Not classified
Corrosion/irritation:	Classified as Skin irritation, Hazard Category 2.
Sensitisation:	Classified as Sensitisation — Skin, hazard category 1.
Carcinogenicity:	Classified as Carcinogenicity category 1B.
Mutagenicity:	Does not have any classifiable toxicity.

SKIN CONTACT:

Acute toxicity:	Calculated ATEmix (LD50)= 2 611,17 mg/kg. Ingredients of unknown toxicity>10%: 80,2 %.Not classified
Corrosion/irritation:	Classified as Skin irritation, Hazard Category 2.
Sensitisation:	Classified as Sensitisation — Skin, hazard category 1.
Carcinogenicity:	Classified as Carcinogenicity category 1B.
Mutagenicity:	Does not have any classifiable toxicity.

EYE CONTACT:

Corrosion/irritation:	Classified as Skin irritation, Hazard Category 2.
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INGESTION:

Acute toxicity:	Calculated ATEmix (LD50) = 503,27 mg/kg. Ingredients of unknown toxicity>10%: 5,12 %.300 <ATEmix> 2 000 mg/kg. Is classified as Acute toxicity, Hazard Category 4
Corrosion/irritation:	Classified as Skin irritation, Hazard Category 2.
Sensitisation:	Classified as Sensitisation — Skin, hazard category 1.
Carcinogenicity:	Classified as Carcinogenicity category 1B.
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)
Benzyl Benzoate (IUPAC: BENZYL BENZOATE)	120-51-4	2 000 mg/kg	No data	No data

Cinnamic Aldehyde (IUPAC: (2E)-3-PHENYLPROP-2-ENAL)	104-55-2	2 220 mg/kg	1 260 mg/kg	68,889 ppm
Ethyl Vanillin (IUPAC: 3-ETHOXY-4-HYDROXYBENZALDEHYDE)	121-32-4	3 160 mg/kg	2 000 mg/kg	No data
Delta Decalactone (IUPAC: 6-HEPTYLOXAN-2-ONE)	705-86-2 713-95-1	2 000 mg/kg	No data	No data
Vanillin (IUPAC: 4-HYDROXY-3-METHOXYBENZALDEHYDE)	121-33-5	3 978 mg/kg bw	2 000 mg/kg bw	No data
Hercolyn D (IUPAC: HYDROGENATED METHYL ROSINATE)	8050-15-5\20 0359-25-7	2 000 mg/kg	2 000 mg/kg	No data
Cinnamyl Acetate (IUPAC: (2E)-3-PHENYLPROP-2-EN-1-YL ACETATE)	103-54-8	3 300 mg/kg bw	5 000 mg/kg bw	No data
Caryophyllene Beta-95% (IUPAC: (1R,4E,9S)-4,11,11- TRIMETHYL-8-METHYLIDENE BICYCLO[7.2.0]UNDEC-4-ENE)	87-44-5 13877-93-5	5 000 mg/kg	No data	No data
Pinene Alpha (VIP) (IUPAC: 2,6,6-TRIMETHYLBICYCLO[3.1.1]HEPT-2-ENE)	80-56-8 7785-26-4	500 mg/kg	2 000 mg/kg	No data
Eugenol (IUPAC: 2-METHOXY-4-(PROP-2-EN-1-YL)PHENOL)	97-53-0	2 000 mg/kg	No data	No data
Pinene Beta (IUPAC: 6,6-DIMETHYL-2-METHYLENE BICYCLO[3.1.1]HEPTANE)	127-91-3	4 700 mg/kg	No data	No data
Methyl Cinnamate (IUPAC: METHYL (2E)-3-PHENYLPROP-2-ENOATE)	103-26-4	2,61 mg/kg	No data	No data

Cinnamon Bark Oil (IUPAC: CINNAMOMUM VERUM BARK EXTRACT CEYLON)	8015-91-6 84649-98-9	3 458 mg/kg	No data	No data
Anisyl Acetate (IUPAC: (4-METHOXYPHEN YL)METHYL ACETATE)	104-21-2	No data	2 000 mg/kg	No data
Linalool (IUPAC: 3,7-DIMETHYLOCT A-1,6-DIEN-3-OL)	78-70-6	2 790 mg/kg	5 610 mg/kg	3 200 mL/kg bw
Eucaliptol (IUPAC: 1,3,3-TRIMETHYL- 2-OXABICYCLO[2.2 .2]OCTANE)	470-82-6	2 480 mg/kg	No data	No data
D-Limonene (IUPAC: (4R)-1-METHYL-4-(PROP-1-EN-2-YL)C YCLOHEX-1-ENE)	5989-27-5 8028-48-6	2 000 mg/kg bw	>5 mg/kg	No data
Furaneol (IUPAC: 4-HYDROXY-2,5-DI METHYL-2,3-DIHY DROFURAN-3-ONE)	3658-77-3	1 660 mg/kg	No data	No data
Benzoic Aldehyde (Benzaldehyde) (IUPAC: BENZALDEHYDE)	100-52-7	1 430 mg/kg bw	>2 000 mg/kg bw	>>5 mg/l
Nuez Moscada Oil (IUPAC: ESSENTIAL OIL EXTRACT OF MYRISTICA FRAGRANS (MYRISTICACEAE) SEED)	8008-45-5 84082-68-8	No data	No data	4,9 mg/l
Terpinolene (IUPAC: 1-METHYL-4-(PRO PAN-2-YLIDENE)C YCLOHEX-1-ENE)	586-62-9	2 000 bw mg/kg bw/day	2 000 mg/kg bw	No data
BHT (IUPAC: 2,6-DI-TERT-BUTY L-4-METHYLPHEN OL)	128-37-0	6 000 mg/kg bw	>2 000 mg/kg bw	No data

11.2. PRIMARY IRRITANT
EFFECT:

11.2.1 ENDOCRINE
DISRUPTING PROPERTIES:

11.3. SENSITISATION:

11.4 CHRONIC EFFECT:

Skin irritation, Hazard Category 2

BHT (IUPAC: 2,6-DI-TERT-BUTYL-4-METHYLPHENOL)

Classified as Sensitisation — Skin, hazard category 1.

Classified as Hazardous to the aquatic environment —
Chronic Category 2.

11.5 TARGET ORGANS:	Does not have any classifiable toxicity.
11.6. CARCINOGENICITY:	Classified as Carcinogenicity category 1B.
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 2.

Ingredients Toxicity:

AQUATIC TOXICITY:

Benzyl Benzoate (IUPAC: BENZYL BENZOATE)	
120-51-4	
LC50/96 H	2,32 mg/l(Fish)
EC50/24 H	4,26 mg/l(Fish)
LC50/48 H	7,77 mg/l(Aquatic invertebrates)
EC50/48 H	3,09 mg/l(Aquatic invertebrates)
LC50/24 H	11 mg/l(Aquatic invertebrates)
EC50/72 H	311 (Aquatic algae and cyanoba)
Cinnamic Aldehyde (IUPAC: (2E)-3-PHENYLPROP-2-ENAL)	
104-55-2	
LC50/96 H	105,764 mg/l(Fish)
LC50/48 H	8,1 mg/l(Aquatic invertebrates)
EC50/48 H	119,558 mg/l(Aquatic invertebrates)
EC50/72 H	31,6 mg/l(Aquatic algae and cyanoba)
Ethyl Vanillin (IUPAC: 3-ETHOXY-4-HYDROXYBENZALDEHYDE)	
121-32-4	
LC50/96 H	87,6 mg/l(Fish)
EC50/48 H	26,2 mg/l(Aquatic invertebrates)
EC50/21days	63 mg/l(Aquatic invertebrates)
EC50/72 H	100 mg/l(Aquatic algae and cyanoba)
Delta Decalactone (IUPAC: 6-HEPTYLOXAN-2-ONE)	
705-86-2 713-95-1	
LC50/96 H	15 mg/l(Fish)
LC50/48 H	2,4 mg/l(Fish)
EC50/48 H	30,1 mg/l(Aquatic invertebrates)
LC50/24 H	9,45 mg/l(Aquatic invertebrates)
EC50/72 H	20,5 mg/l(Aquatic algae and cyanoba)
EC50/24 H	230 mg/l(Aquatic algae and cyanoba)
Vanillin (IUPAC: 4-HYDROXY-3-METHOXYBENZALDEHYDE)	
121-33-5	
LC50/96 H	123 mg/l(Fish)
LC50/96 H	57 mg/l(Fish)
EC50/48 H	36,79 mg/l(Fish)
EC50/48 H	36,79 mg/l(Aquatic invertebrates)
EC50/21days	16 mg/l(Aquatic invertebrates)
EC50/72 H	120 mg/l(Aquatic algae and cyanoba)
EC50/72 H	120 mg/l(Algae)
EC50/21days	24 mg/l(Aquatic algae and cyanoba)

Cinnamyl Acetate (IUPAC: (2E)-3-PHENYLPROP-2-EN-1-YL ACETATE)	
103-54-8	
LC50/96 H	2,76 mg/l(Fish)
LC50/96 H	2,76 mg/l(Fish)
EC50/48 H	29,4 mg/l(Fish)
EC50/48 H	29,4 mg/l(Aquatic invertebrates)
EC50/72 H	12,3 mg/l(Aquatic algae and cyanoba)
EC50/72 H	12,3 mg/l(Aquatic algae and cyanoba)
Caryophyllene Beta-95% (IUPAC: (1R,4E,9S)-4,11,11-TRIMETHYL-8-METHYLIDENE BICYCLO[7.2.0]UNDEC-4-ENE)	
87-44-5 13877-93-5	
EC50/48 H	170 (Aquatic invertebrates)
EC50/72 H	33 (Algae)
Pinene Alpha (VIP) (IUPAC: 2,6,6-TRIMETHYLBICYCLO[3.1.1]HEPT-2-ENE)	
80-56-8 7785-26-4	
LC50/96 H	303 (Fish)
EC50/48 H	475 (Aquatic invertebrates)
LC50/24 H	1,83 mg/l(Daphnia magna)
Eugenol (IUPAC: 2-METHOXY-4-(PROP-2-EN-1-YL)PHENOL)	
97-53-0	
LC50/96 H	13 mg/l(Fish)
LC50/48 H	13 mg/l(Fish)
LC50/24 H	13 mg/l(Fish)
LC50/72 H	13 mg/l(Fish)
EC50/48 H	1,05 mg/l(Aquatic invertebrates)
EC50/72 H	23 mg/l(Algae)
Pinene Beta (IUPAC: 6,6-DIMETHYL-2-METHYLENE BICYCLO[3.1.1]HEPTANE)	
127-91-3	
LC50/96 H	591 (Fish)
EC50/96 H	502 (Fish)
LC50/96 H	0,502 mg/l(Fish Pimephales promelas)
LC50/48 H	1,09 mg/l(Aquatic invertebrates)
EC50/48 H	1,25 mg/l(Aquatic invertebrates)
LC50/72 H	700 (Algae)
EC50/72 H	700 (Algae)
LC50/48 H	826 (Algae)
Methyl Cinnamate (IUPAC: METHYL (2E)-3-PHENYLPROP-2-ENOATE)	
103-26-4	
LC50/96 H	2,76 mg/l(Fish)
EC50/48 H	24 mg/l(Aquatic invertebrates)
EC50/72 H	7,6 mg/l(Algae)
Cinnamon Bark Oil 70% (IUPAC: CINNAMOMUM VERUM BARK EXTRACT CEYLON)	
8015-91-6 84649-98-9	
EC50/48 H	1,6 mg/l(Aquatic invertebrates)
EC50/96 H	1,68 mg/l(Aquatic algae and cyanoba)
Anisyl Acetate (IUPAC: (4-METHOXYPHENYL)METHYL ACETATE)	
104-21-2	
LC50/96 H	13,1 mg/l(Fish)
EC50/48 H	31 mg/l(Aquatic invertebrates)
EC50/72 H	59,9 mg/l(Aquatic algae and cyanoba)

Linalool (IUPAC: 3,7-DIMETHYLOCTA-1,6-DIEN-3-OL)	
78-70-6	
LC50/96 H	27,8 mg/l(Fish)
LC50/72 H	27,8 mg/l(Fish)
LC50/48 H	27,8 mg/l(Fish)
EC50/96 H	59 mg/l(Aquatic invertebrates)
EC50/96 H	122,5 mg/l(Algae)
Eucaliptol (IUPAC: 1,3,3-TRIMETHYL-2-OXABICYCLO[2.2.2]OCTANE)	
470-82-6	
LC50/96 H	57 mg/l(Fish)
EC50/48 H	100 mg/l(Aquatic invertebrates)
EC50/72 H	74 mg/l(Algae)
EC50/96 H	87 mg/l(Algae)
D-Limonene (IUPAC: (4R)-1-METHYL-4-(PROP-1-EN-2-YL)CYCLOHEX-1-ENE)	
5989-27-5 8028-48-6	
LC50/96 H	590 mg/l(Fish)
EC50/96 H	695 (Fish)
LC50/96 H	720 mg/l(Fish)
EC50/96 H	702 mg/l(Fish)
EC50/48 H	408,5 mg/l(Aquatic invertebrates)
EC50/48 H	510 mg/l(Aquatic invertebrates)
EC50/24 H	840 mg/l(Aquatic invertebrates)
EC50/21da ys	188 mg/l(Aquatic invertebrates)
EC50/72 H	320 mg/l(Aquatic algae and cyanoba)
EC50/48 H	250 (Algae)
EC50/48 H	250 mg/l(Aquatic algae and cyanoba)
Furaneol (IUPAC: 4-HYDROXY-2,5-DIMETHYL-2,3-DIHYDROFURAN-3-ONE)	
3658-77-3	
EC50/48 H	6,8 mg/l(Aquatic invertebrates)
EC50/72 H	194,03 mg/l(Algae)
Benzoic Aldehyde (Benzaldehyde) (IUPAC: BENZALDEHYDE)	
100-52-7	
LC50/96 H	1,07 mg/l(Fish)
LC50/96 H	13,8 mg/l(Fish)
EC50/48 H	19,7 mg/l(Aquatic invertebrates)
EC50/24 H	50 mg/l(Aquatic invertebrates)
EC50/24 H	50 mg/l(Aquatic invertebrates)
EC50/72 H	33,1 mg/l(Aquatic algae and cyanoba)
Nuez Moscada Oil (IUPAC: ESSENTIAL OIL EXTRACT OF MYRISTICA FRAGRANS (MYRISTICACEAE) SEED)	
8008-45-5 84082-68-8	
EC50/48 H	590 µg/L(Aquatic invertebrates)
Terpinolene (IUPAC: 1-METHYL-4-(PROPAN-2-YLIDENE)CYCLOHEX-1-ENE)	
586-62-9	
LC50/96 H	18 000 mg/l(Fish)
EC50/96 H	1 480 mg/l(Fish)
LC50/96 H	18 000 mg/l(Fish)
EC50/96 H	1 480 (Fish)
EC50/48 H	14 850 mg/l(Aquatic invertebrates)
LC50/48 H	2 550 mg/l(Aquatic invertebrates)

LC50/48 H	2 550 (Aquatic invertebrates)
EC50/72 H	11 690 mg/l(Aquatic algae and cyanoba)
EC50/72 H	11 690 (Aquatic algae and cyanoba)
EC50/96 H	3,95 mg/l(Aquatic algae and cyanoba)
EC50/96 H	3,95 mg/l(Aquatic algae and cyanoba)
Acetyl Propionyl (2,3-Pentanedion) (IUPAC: PENTANE-2,3-DIONE)	
600-14-6	
EC50/48 H	22,4 mg/l(Aquatic invertebrates)
EC50/72 H	44,9 mg/l(Aquatic invertebrates)
BHT (IUPAC: 2,6-DI-TERT-BUTYL-4-METHYLPHENOL)	
128-37-0	
LC50/96 H	384,5 µg/L(Fish)
EC50/72 H	5 120 µg/L(Algae)
EC50/96 H	758 µg/L(Algae)

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

ASSESSMENT No data available

BIODEGRADATION AND ELIMINATION:

12.3. BIOACCUMULATIVE POTENTIAL No further relevant information available. Low potential for bioaccumulation: logPow<4 (log Powcalculated = 0)

INGREDIENT	CAS №	Partition Coefficient
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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: 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: _____
	wastes from the MFSU of fine chemicals and chemical products not
07 07	otherwise specified
07 07 99	wastes not otherwise specified
	absorbents, filter materials (including oil filters not otherwise specified),
15 02 02*	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 ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE 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 mentioned by a black stroke in left margin.

ABBREVIATIONS AND ACRONYMS:

PBT:	Persistent, bioaccumulative, toxic
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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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