



DE HEKSERIJ

FO Sun and flowers

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 6/26/2024 Revision date: 4/3/2026 Supersedes version of: 6/26/2024 Version: 2.0

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

1.1. Product identifier

Product form : Mixture
Product name : FO Sun and flowers
UFI : JRGJ-CUQP-GX1N-37NF
Product code : 21117
Product group : Trade product

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

Relevant identified uses

Intended for general public
Main use category : Professional use, Consumer use
Use of the substance/mixture : Fragrance raw material

1.3. Details of the supplier of the safety data sheet

De Hekserij
Sporstraat 57
8271 RG IJsselmuiden
Nederland
T +31 383 557 927
hekserij@hekserij.nl, www.hekserij.nl

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin sensitisation, Category 1 H317
Reproductive toxicity, Category 2 H361
Hazardous to the aquatic environment – Chronic Hazard, Category 2 H411

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Suspected of damaging fertility or the unborn child. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



Signal word (CLP) :

Warning

Contains :

Hexyl salicylate; Piperonal; α -hexylcinnamaldehyde; 3,4-Dimethoxy benzaldehyde; (Z)-3-hexenyl salicylate; Benzyl salicylate; Methyl 2,4-dihydroxy-3,6-dimethylbenzoate; Methyl cedryl ketone; Reaction products of acetic anhydride and 1,5,10-trimethyl-1,5,9-cyclododecatriene

Hazard statements (CLP) :

H317 - May cause an allergic skin reaction.
H361 - Suspected of damaging fertility or the unborn child.
H411 - Toxic to aquatic life with long lasting effects.

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Precautionary statements (CLP)	: P102 - Keep out of reach of children. P201 - Obtain special instructions before use. P261 - Avoid breathing vapours, spray, fume. P273 - Avoid release to the environment. P280 - Wear protective gloves, protective clothing, face protection. P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P308+P313 - IF exposed or concerned: Get medical advice/attention. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse. P391 - Collect spillage. P405 - Store locked up. P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Extra phrases	: Fragrance allergens (Cosmetics): TRIMETHYLBENZENEPROPANOL 0,243 PINENE 0,0036 HEXYL CINNAMAL 3,988 HEXAMETHYLINDANOPYRAN 5 CINNAMYL ALCOHOL 0,0027 BENZYL SALICYLATE 3 BENZYL BENZOATE 0,005 ANETHOLE 0,0014 ACETYLCEDRENE 1,5.

2.3. Other hazards

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	Galaxolide (1222-05-5), Reaction products of acetic anhydride and 1,5,10-trimethyl-1,5,9-cyclodecatriene (144020-22-4)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	Galaxolide (1222-05-5), Reaction products of acetic anhydride and 1,5,10-trimethyl-1,5,9-cyclodecatriene (144020-22-4)

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Galaxolide	CAS-No.: 1222-05-5 EC-No.: 214-946-9 REACH-no: 01-2119488227-29	5 – 10	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Hexyl salicylate	CAS-No.: 6259-76-3 EC-No.: 228-408-6 REACH-no: 01-2119638275-36	5 – 10	Skin Sens. 1B, H317 Repr. 2, H361d Aquatic Acute 1, H400 Aquatic Chronic 2, H411
Piperonal	CAS-No.: 120-57-0 EC-No.: 204-409-7 REACH-no: 01-2119983608-21	≤ 5	Skin Sens. 1, H317 Repr. 2, H361

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one	CAS-No.: 1506-02-1 EC-No.: 216-133-4	≤ 5	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
α-hexylcinnamaldehyde	CAS-No.: 101-86-0 EC-No.: 202-983-3	≤ 5	Skin Sens. 1B, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
3,4-Dimethoxy benzaldehyde	CAS-No.: 120-14-9 EC-No.: 204-373-2 REACH-no: 01-2120739621-56	≤ 5	Acute Tox. 4 (Oral), H302 Skin Sens. 1, H317
Isobornylcyclohexanol	CAS-No.: 68877-29-2 EC-No.: 272-556-4 REACH-no: 01-2119979583-21	≤ 5	Aquatic Acute 1, H400 Aquatic Chronic 2, H411
Ethyl vanillin	CAS-No.: 121-32-4 EC-No.: 204-464-7 REACH-no: 01-2119958961-24	≤ 5	Eye Irrit. 2, H319
(Z)-3-hexenyl salicylate	CAS-No.: 65405-77-8 EC-No.: 265-745-8 REACH-no: 01-2119987320-37	≤ 5	Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Benzyl salicylate	CAS-No.: 118-58-1 EC-No.: 204-262-9 REACH-no: 01-2119969442-31	≤ 5	Eye Irrit. 2, H319 Skin Sens. 1B, H317 Aquatic Chronic 3, H412
Methyl 2,4-dihydroxy-3,6-dimethylbenzoate	CAS-No.: 4707-47-5 EC-No.: 225-193-0 REACH-no: 01-2120762759-36	≤ 5	Skin Sens. 1B, H317
Methyl cedryl ketone	CAS-No.: 32388-55-9 EC-No.: 251-020-3 REACH-no: 01-2119969651-28	≤ 5	Skin Sens. 1B, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Reaction products of acetic anhydride and 1,5,10-trimethyl-1,5,9-cyclodecatiene	CAS-No.: 144020-22-4 EC-No.: 482-330-9 REACH-no: 01-0000020172-83	≤ 5	Skin Sens. 1B, H317 Aquatic Chronic 1, H410

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.
Self protection of the first-aiders	: First aid workers will be equipped with suitable personal protective equipment.

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

Symptoms/effects after inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: None under normal conditions.
Symptoms/effects after ingestion	: None under normal conditions.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Advice for firefighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
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For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray.

For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Collect spillage. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.
Methods for cleaning up	: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: Not expected to present a significant hazard under anticipated conditions of normal use.
Precautions for safe handling	: Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray.
Hygiene measures	: Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Keep in a cool, well-ventilated place away from heat.
Storage conditions	: Store locked up.
Packaging materials	: Always store product in container of same material as original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Personal protective equipment symbol(s):



Eye and face protection

Eye protection:

Safety glasses

Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

Respiratory protection

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: pale yellow to yellow.
Odour	: Not available
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Non flammable.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: > 80 °C
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: Not available
Solubility	: Insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: 1.001 – 1.031
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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Galaxolide (1222-05-5)	
LD50 oral rat	> 4640 mg/kg bw/day Species: Rat; OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rat	> 6500 mg/kg bw/day Species: Rat; OECD Guideline 402 (Acute Dermal Toxicity)
Hexyl salicylate (6259-76-3)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
Piperonal (120-57-0)	
LD50 oral rat	2700 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 2350 - 3100
LD50 dermal rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: other:, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one (1506-02-1)	
LD50 oral rat	920 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 795 - 1066
LD50 dermal rat	7940 mg/kg bodyweight Animal: rat, Animal sex: female, 95% CL: 4890 - 12900
3,4-Dimethoxy benzaldehyde (120-14-9)	
LD50 oral rat	2000 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 1840 - 2160
Ethyl vanillin (121-32-4)	
LD50 oral rat	> 3160 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
4-Methoxybenzaldehyde (123-11-5)	
LD50 oral rat	3210 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 2755 - 3600
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit
(Z)-3-hexenyl salicylate (65405-77-8)	
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: EU Method B.3 (Acute Toxicity (Dermal))
Benzyl salicylate (118-58-1)	
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: EU Method B.3 (Acute Toxicity (Dermal))
Methyl 2,4-dihydroxy-3,6-dimethylbenzoate (4707-47-5)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
Methyl cedryl ketone (32388-55-9)	
LD50 oral rat	4500 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)

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Methyl cedryl ketone (32388-55-9)	
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
Reaction products of acetic anhydride and 1,5,10-trimethyl-1,5,9-cyclodecatriene (144020-22-4)	
LD50 oral	> 5000 mg/kg bodyweight Animal: other., Guideline: OECD Guideline 401 (Acute Oral Toxicity)
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
Ethyl vanillin (121-32-4)	
NOAEL (animal/female, F0/P)	500 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)
Benzyl salicylate (118-58-1)	
NOAEL (animal/female, F0/P)	158 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)
Methyl 2,4-dihydroxy-3,6-dimethylbenzoate (4707-47-5)	
NOAEL (animal/male, F0/P)	≥ 717 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other., Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test), Guideline: other., Guideline: other., Guideline: other.: Guideline: other:
NOAEL (animal/female, F0/P)	≥ 1175 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other., Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test), Guideline: other., Guideline: other., Guideline: other.: Guideline: other:
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Galaxolide (1222-05-5)	
NOAEL (oral, rat, 90 days)	150 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
Hexyl salicylate (6259-76-3)	
NOAEL (oral, rat, 90 days)	46.9 mg/kg bodyweight Animal: rat
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.249 mg/l air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)
Piperonal (120-57-0)	
NOAEL (oral, rat, 90 days)	300 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other:
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one (1506-02-1)	
NOAEL (dermal, rat/rabbit, 90 days)	≥ 10 mg/kg bodyweight Animal: rat, Animal sex: female
4-Methoxybenzaldehyde (123-11-5)	
NOAEL (oral, rat, 90 days)	100 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)

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(Z)-3-hexenyl salicylate (65405-77-8)	
NOAEL (oral, rat, 90 days)	200 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Benzyl salicylate (118-58-1)	
NOAEL (oral, rat, 90 days)	177 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
Methyl cedryl ketone (32388-55-9)	
NOAEL (oral, rat, 90 days)	80 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (dermal, rat/rabbit, 90 days)	300 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)
Reaction products of acetic anhydride and 1,5,10-trimethyl-1,5,9-cyclodecatriene (144020-22-4)	
NOAEL (oral, rat, 90 days)	150 mg/kg bodyweight Animal: rat, Guideline: EU Method B.7 (Repeated Dose (28 Days) Toxicity (Oral))

Aspiration hazard : Not classified

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute) : Not classified.
Hazardous to the aquatic environment, long-term (chronic) : Toxic to aquatic life with long lasting effects.

Galaxolide (1222-05-5)	
LC50 - Fish [1]	0.452 mg/l Test organisms (species): Lepomis macrochirus
EC50 - Crustacea [1]	0.9 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 0.854 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
NOEC (chronic)	0.111 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	0.068 mg/l Test organisms (species): Pimephales promelas Duration: '36 d'
Hexyl salicylate (6259-76-3)	
EC50 - Crustacea [1]	0.357 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	0.61 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	0.28 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
Piperonal (120-57-0)	
LC50 - Fish [1]	2.5 mg/l Test organisms (species): Cyprinus carpio
EC50 - Crustacea [1]	52 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	31 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)

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Piperonal (120-57-0)	
EC50 72h - Algae [2]	6.8 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one (1506-02-1)	
LC50 - Fish [1]	1.49 mg/l
EC50 72h - Algae [1]	> 0.835 mg/l
NOEC chronic crustacea	> 0.8 mg/l Test organisms (species): aquatic invertebrates; Duration 3 d.
α-hexylcinnamaldehyde (101-86-0)	
LC50 - Fish [1]	1.7 mg/l
EC50 - Crustacea [1]	< 0.59 mg/l
EC50 72h - Algae [1]	> 0.065 mg/l
3,4-Dimethoxy benzaldehyde (120-14-9)	
EC50 - Crustacea [1]	52 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	31 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
Ethyl vanillin (121-32-4)	
LC50 - Fish [1]	87.6 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	26.2 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
LOEC (chronic)	10 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	5.9 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
4-Methoxybenzaldehyde (123-11-5)	
LC50 - Fish [1]	148.32 mg/l Test organisms (species): Leuciscus idus
EC50 - Crustacea [1]	82.8 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	68.4 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
LOEC (chronic)	1.53 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0.71 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
(Z)-3-hexenyl salicylate (65405-77-8)	
LC50 - Fish [1]	> 0.65 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	0.6 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	0.61 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	0.28 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
Benzyl salicylate (118-58-1)	
LC50 - Fish [1]	1.03 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	1.16 mg/l Test organisms (species): Daphnia magna

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Benzyl salicylate (118-58-1)	
EC50 72h - Algae [1]	0.691 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	1.29 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
Methyl 2,4-dihydroxy-3,6-dimethylbenzoate (4707-47-5)	
LC50 - Fish [1]	5.2 mg/l Test organisms (species): not specified
EC50 - Crustacea [1]	9.3 mg/l Test organisms (species): Daphnia sp.
EC50 96h - Algae [1]	3.3 mg/l Test organisms (species): other:
Methyl cedryl ketone (32388-55-9)	
LC50 - Fish [1]	2.3 mg/l Test organisms (species): Pimephales promelas
LC50 - Fish [2]	3 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	0.86 mg/l Test organisms (species): Daphnia magna
EC50 96h - Algae [1]	2.8 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [2]	> 4.3 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
Reaction products of acetic anhydride and 1,5,10-trimethyl-1,5,9-cyclodecatriene (144020-22-4)	
LC50 - Fish [1]	0.63 mg/l Test organisms (species): other:
EC50 72h - Algae [1]	3.6 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)

12.2. Persistence and degradability

FO Sun and flowers	
Persistence and degradability	Not rapidly degradable
Galaxolide (1222-05-5)	
Persistence and degradability	Not rapidly degradable
Hexyl salicylate (6259-76-3)	
Persistence and degradability	Not rapidly degradable
Piperonal (120-57-0)	
Persistence and degradability	Not rapidly degradable
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one (1506-02-1)	
Persistence and degradability	Not rapidly degradable
α-hexylcinnamaldehyde (101-86-0)	
Persistence and degradability	Not rapidly degradable
3,4-Dimethoxy benzaldehyde (120-14-9)	
Persistence and degradability	Not rapidly degradable
Isobornylcyclohexanol (68877-29-2)	
Persistence and degradability	Not rapidly degradable

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Ethyl vanillin (121-32-4)	
Persistence and degradability	Not rapidly degradable
4-Methoxybenzaldehyde (123-11-5)	
Persistence and degradability	Not rapidly degradable
(Z)-3-hexenyl salicylate (65405-77-8)	
Persistence and degradability	Not rapidly degradable
Benzyl salicylate (118-58-1)	
Persistence and degradability	Not rapidly degradable
Methyl 2,4-dihydroxy-3,6-dimethylbenzoate (4707-47-5)	
Persistence and degradability	Not rapidly degradable
Methyl cedryl ketone (32388-55-9)	
Persistence and degradability	Not rapidly degradable
Reaction products of acetic anhydride and 1,5,10-trimethyl-1,5,9-cyclodecatriene (144020-22-4)	
Persistence and degradability	Not rapidly degradable

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	Galaxolide (1222-05-5), Reaction products of acetic anhydride and 1,5,10-trimethyl-1,5,9-cyclodecatriene (144020-22-4)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	Galaxolide (1222-05-5), Reaction products of acetic anhydride and 1,5,10-trimethyl-1,5,9-cyclodecatriene (144020-22-4)

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

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ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 3082	UN 3082	UN 3082	UN 3082	UN 3082
14.2. UN proper shipping name				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FO Sun and flowers)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FO Sun and flowers)	Environmentally hazardous substance, liquid, n.o.s. (FO Sun and flowers)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FO Sun and flowers)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FO Sun and flowers)
Transport document description				
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FO Sun and flowers), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FO Sun and flowers), 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (FO Sun and flowers), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FO Sun and flowers), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FO Sun and flowers), 9, III
14.3. Transport hazard class(es)				
9	9	9	9	9
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes EmS-No. (Fire): F-A EmS-No. (Spillage): S-F	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR)	: M6
Special provisions (ADR)	: 274, 335, 375, 601
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001
Special packing provisions (ADR)	: PP1
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T4
Portable tank and bulk container special provisions (ADR)	: TP1, TP29
Tank code (ADR)	: LGBV
Vehicle for tank carriage	: AT
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V12
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV13
Hazard identification number (Kemler No.)	: 90

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Orange plates : 

Tunnel restriction code (ADR) : -

Transport by sea

Special provisions (IMDG) : 274, 335, 969
Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : LP01, P001
Special packing provisions (IMDG) : PP1
IBC packing instructions (IMDG) : IBC03
Tank instructions (IMDG) : T4
Tank special provisions (IMDG) : TP1, TP29
Stowage category (IMDG) : A

Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y964
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 964
PCA max net quantity (IATA) : 450L
CAO packing instructions (IATA) : 964
CAO max net quantity (IATA) : 450L
Special provisions (IATA) : A97, A158, A197, A215
ERG code (IATA) : 9L

Inland waterway transport

Classification code (ADN) : M6
Special provisions (ADN) : 274, 335, 375, 601
Limited quantities (ADN) : 5 L
Excepted quantities (ADN) : E1
Carriage permitted (ADN) : T
Equipment required (ADN) : PP
Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : M6
Special provisions (RID) : 274, 335, 375, 601
Limited quantities (RID) : 5L
Excepted quantities (RID) : E1
Packing instructions (RID) : P001, IBC03, LP01, R001
Special packing provisions (RID) : PP1
Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T4
Portable tank and bulk container special provisions (RID) : TP1, TP29
Tank codes for RID tanks (RID) : LGBV
Transport category (RID) : 3
Special provisions for carriage – Packages (RID) : W12
Special provisions for carriage - Loading, unloading and handling (RID) : CW13, CW31
Colis express (express parcels) (RID) : CE8
Hazard identification number (RID) : 90

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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SECTION 15: Regulatory information

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

EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(b)	FO Sun and flowers ; Hexyl salicylate ; α - hexylcinnamaldehyde ; (Z)-3-hexenyl salicylate ; Benzyl salicylate ; Methyl cedryl ketone ; Reaction products of acetic anhydride and 1,5,10- trimethyl-1,5,9- cyclodecatriene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	FO Sun and flowers ; Galaxolide ; Hexyl salicylate ; α - hexylcinnamaldehyde ; Isobornylcyclohexanol ; 4- Methoxybenzaldehyde ; (Z)-3-hexenyl salicylate ; Benzyl salicylate ; Methyl cedryl ketone ; Reaction products of acetic anhydride and 1,5,10- trimethyl-1,5,9- cyclodecatriene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

Explosives Precursors Regulation (EU 2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (EC 273/2004)

Contains substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

Name	CN designation	CAS-No.	CN code	Category, Subcategory	Threshold	Annex
Piperonal		120-57-0	2932 93 00	Category 1		Annex I

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National regulations

Netherlands

SZW-lijst van kankerverwekkende stoffen	: Isobornylcyclohexanol,(Z)-3-hexenyl salicylate are listed
SZW-lijst van mutagene stoffen	: Isobornylcyclohexanol,(Z)-3-hexenyl salicylate are listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	: None of the components are listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid	: None of the components are listed
SZW-lijst van reprotoxische stoffen – Ontwikkeling	: Hexyl salicylate is listed

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

ACGIH	American Conference of Governmental Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
CAS-No.	Chemical Abstracts Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
COD	Chemical oxygen demand (COD)
CSA	Chemical safety assessment
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
ED	Endocrine disruptor
EN	European Standard
EWC	European waste catalogue
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
Log Kow	Partition coefficient n-octanol/water (Log Kow)
Log Pow	Partition coefficient n-octanol/water (Log Pow)
MAK	maximum workplace concentration
NOAEC	No-Observed Adverse Effect Concentration

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Abbreviations and acronyms:	
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
N.O.S.	Not Otherwise Specified
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
OSHA	Occupational Safety Health Administration
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
PPE	Personal protection equipment
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TF	Technical function
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
TWA	Time Weighted Average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
UFI	Unique Formula Identifier

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Repr. 2	Reproductive toxicity, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1B	Skin sensitisation, category 1B
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

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Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.