SAFFRON #EU35406F

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 26/12/2024 Revision date: 07/08/2025 Supersedes version of: 26/12/2024 Version: 1.1

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

1.1. Product identifier

Product form	:	Mixture
Trade name	:	SAFFRON #EU35406F
UFI	:	PV4P-KCRG-J00D-0NVE
Product code	:	EU35406F
Type of product	:	Perfumes, fragrances
Product group	:	Trade product

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

Relevant identified uses

Main use category	:	Professional use,Industrial use
Industrial/Professional use spec	:	Industrial For professional use only
Use of the substance/mixture	:	Perfumes, fragrances
Function or use category	:	Odour agents

1.3. Details of the supplier of the safety data sheet

FRENCH COLOR & FRAGRANCE INTERNATIONAL GmbH
Mittlerer Weg 35
DE 79424 Auggen
Germany
T 49-7631-931-8900
SDS@frenchcolor.com, www.frenchcolor.com

1.4. Emergency telephone number

Emergency number	:	1-800-255-3924; +01-813-248-0585; China:+400-120-0751; Mexico:+01-800-099-0731; Brazil: +0-800-591-6042; India: +000-800-100-4086

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
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

Toxic to aquatic life with long lasting effects. May cause an allergic skin reaction.

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS07 GHS09

Signal word (CLP)	:	Warning
Contains	:	Cinnamic aldehyde; Eugenol; beta-Caryophyllene; Linalool; Linalyl acetate; Juniper berry oil ; Pimento oil (Allspice); Phenylacetaldehyde; Galbanum oil; White Camphor oil; Ginger oil; 1,2-Cyclopentanedione, 3-methyl-; Cinnamalva
Hazard statements (CLP)	:	H317 - May cause an allergic skin reaction. H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P321 - Specific treatment (see supplemental first aid instruction on this label).

2.3. Other hazards

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

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]
Amyl salicylate	CAS-No.: 2050-08-0 EC-No.: 218-080-2 REACH-no: 01-2119969444-27	2.9 – 5.75	Acute Tox. 4 (Oral), H302 Aquatic Chronic 1, H410
Eugenol	CAS-No.: 97-53-0 EC-No.: 202-589-1 REACH-no: 01-2119971802-33	1.8 – 4	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Skin Sens. 1B, H317
Cinnamic aldehyde	CAS-No.: 104-55-2 EC-No.: 203-213-9 EC Index-No.: 606-155-00-6 REACH-no: 01-2119935242-45	1.64 – 3.4	Acute Tox. 4 (Dermal), H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1A, H317 Aquatic Chronic 3, H412
Methyl pamplemousse	CAS-No.: 67674-46-8 EC-No.: 266-885-2	1 – 1.95	Aquatic Chronic 3, H412 Skin Irrit. 2, H315
Vanillin	CAS-No.: 121-33-5 EC-No.: 204-465-2 REACH-no: 01-2119516040-60	0.6650095 – 1.3860198	Eye Irrit. 2, H319
Sandela	CAS-No.: 66068-84-6 EC-No.: 266-100-3	0.7 – 1.3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
beta-Caryophyllene	CAS-No.: 87-44-5 EC-No.: 201-746-1 REACH-no: 01-2120745237-53	0.44 – 1.2	Asp. Tox. 1, H304 Skin Sens. 1B, H317
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran; galaxolide; (HHCB)	CAS-No.: 1222-05-5 EC-No.: 214-946-9 EC Index-No.: 603-212-00-7 REACH-no: 01-2119488227-29	0.5 – 0.95	Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Juniper berry oil	CAS-No.: 8002-68-4 EC-No.: 616-801-9	0.5 – 0.95	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Chronic 1, H410
Linalool	CAS-No.: 78-70-6 EC-No.: 201-134-4 EC Index-No.: 603-235-00-2 REACH-no: 01-2119474016-42	0.2 – 0.416	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
Pimento oil (Allspice)	CAS-No.: 8006-77-7	0.2 – 0.3	Eye Irrit. 2, H319 Skin Sens. 1, H317 Muta. 2, H341 Carc. 2, H351 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Phenylacetaldehyde	CAS-No.: 122-78-1 EC-No.: 204-574-5 REACH-no: 01-2120766865-37	0.1 – 0.25	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317 Aquatic Chronic 3, H412
Galbanum oil	CAS-No.: 8023-91-4 EC-No.: 232-532-6, 296-925-4	0.1 – 0.2	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Chronic 1, H410
Benzyl acetate substance with national workplace exposure limit(s) (BE, DK, ES, IE, LT, LV, PT, RO)	CAS-No.: 140-11-4 EC-No.: 205-399-7 REACH-no: 01-2119638272-42	0.1 – 0.2	Aquatic Chronic 3, H412
Linalyl acetate	CAS-No.: 115-95-7 EC-No.: 204-116-4 REACH-no: 01-2119454789-19	0.1 – 0.166	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
White Camphor oil	CAS-No.: 8008-51-3 EC-No.: 295-980-1	0.1 – 0.15	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Repr. 2, H361fd Asp. Tox. 1, H304 Aquatic Chronic 1, H410
Ginger oil	CAS-No.: 8007-08-7 EC-No.: 283-634-2	0.1 – 0.1	Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
1,2-Cyclopentanedione, 3-methyl-	CAS-No.: 765-70-8 EC-No.: 212-154-8	0.1 – 0.1	Acute Tox. 4 (Oral), H302 Skin Sens. 1, H317
Cinnamalva	CAS-No.: 1885-38-7 EC-No.: 217-552-5	0.1 – 0.1	Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Sens. 1B, H317

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
(R)-p-mentha-1,8-diene; d-limonene substance with national workplace exposure limit(s) (DE, ES, FI, SI, NO, CH)	CAS-No.: 5989-27-5 EC-No.: 205-341-0 EC Index-No.: 601-096-00-2 REACH-no: 01-2119493353-35	< 0.016	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 3, H412
.alpha.-Pinene substance with national workplace exposure limit(s) (BE, EE, ES, LT, PT, SE, NO)	CAS-No.: 80-56-8 EC-No.: 201-291-9	< 0.016	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
.beta.-Pinene substance with national workplace exposure limit(s) (BE, EE, ES, LT, PT, SE, NO)	CAS-No.: 127-91-3 EC-No.: 204-872-5	< 0.016	Flam. Liq. 3, H226
citral substance with national workplace exposure limit(s) (BE, ES, IE, PL, PT)	CAS-No.: 5392-40-5 EC-No.: 226-394-6 EC Index-No.: 605-019-00-3 REACH-no: 01-2119462829-23	0.001 – 0.003	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
Dipropylene glycol monomethyl ether substance with national workplace exposure limit(s) (AT, BE, BG, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GI, GR, HR, HU, IE, IT, LT, LU, LV, MT, NL, PL, PT, RO, SE, SI, SK, NO, CH, TR); substance with a Community workplace exposure limit	CAS-No.: 34590-94-8 EC-No.: 252-104-2	0.000254 – 0.000508	Not classified
Toluene substance with national workplace exposure limit(s) (AT, BE, BG, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GI, GR, HR, HU, IE, IT, LT, LU, LV, MT, NL, PL, PT, RO, SE, SI, SK, NO, CH, TR); substance with a Community workplace exposure limit	CAS-No.: 108-88-3 EC-No.: 203-625-9 EC Index-No.: 601-021-00-3	≤ 0.000006	Not classified

Specific concentration limits:

Name	Product identifier	Specific concentration limits (%)
Cinnamic aldehyde	CAS-No.: 104-55-2 EC-No.: 203-213-9 EC Index-No.: 606-155-00-6 REACH-no: 01-2119935242-45	(0.001 < C < 0.01) EUH208 (0.01 ≤ C < 0.1) Skin Sens. 1; H317 (0.1 ≤ C < 100) Skin Sens. 1A; H317

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 : Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see Get medical advice/attention. on this label). If skin irritation occurs: Get medical advice/attention. Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of water/…. Get medical advice/attention. Wash contaminated clothing before reuse. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects : Suspected of damaging fertility or the unborn child. Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/effects after skin contact : May cause an allergic skin reaction.

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 : Sand. 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

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. 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

For non-emergency personnel

Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. 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. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

See Section 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.

Hygiene measures : Wash hands thoroughly after handling. 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

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Keep container closed when not in use. Store in a well-ventilated place. Keep cool.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

Storage temperature : 25 °C

Storage area : Store in a well-ventilated place. Store away from heat.

Special rules on packaging : Store in a closed container.

Packaging materials : Do not store in corrodable metal.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

National occupational exposure and biological limit values

Toluene (108-88-3)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	192 mg/m³
	50 ppm
IOEL STEL	384 mg/m³
	100 ppm
Remark	Possibility of significant uptake through the skin
Ireland - Occupational Exposure Limits	
OEL TWA	192 mg/m³
	50 ppm
OEL STEL	384 mg/m³
	100 ppm

Toluene (108-88-3)	
OEL chemical category	Potential for cutaneous absorption

Dipropylene glycol monomethyl ether (34590-94-8)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	308 mg/m³
	50 ppm
Remark	Possibility of significant uptake through the skin
Ireland - Occupational Exposure Limits	
OEL TWA	308 mg/m³ ((2-Methoxymethylethoxy)propanol)
	50 ppm ((2-Methoxymethylethoxy)propanol)
OEL STEL	924 mg/m³ (calculated (2-(2-Methoxypropoxy)-1-propanol)
	150 ppm (calculated (2-(2-Methoxypropoxy)-1-propanol)
OEL chemical category	Potential for cutaneous absorption

Benzyl acetate (140-11-4)	
Ireland - Occupational Exposure Limits	
OEL TWA	10 ppm
OEL STEL	30 ppm (calculated)

citral (5392-40-5)	
Ireland - Occupational Exposure Limits	
OEL TWA	5 ppm
OEL STEL	15 ppm (calculated)

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:
Ensure good ventilation of the work station.

Personal protection equipment

Personal protective equipment:
Avoid all unnecessary exposure.
Personal protective equipment symbol(s):

Eye and face protection

Eye protection:
Chemical goggles or safety glasses. Safety glasses

Skin protection

Skin and body protection:
Wear suitable protective clothing

Hand protection:
Wear protective gloves.

Respiratory protection

Respiratory protection:
Wear appropriate mask

Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment.
Other information:
Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	light yellow. amber. Conforms to standard.
Odour	:	characteristic.
Odour threshold	:	Not available
Melting point	:	Not applicable
Freezing point	:	Not available
Boiling point	:	Not available
Flammability	:	Not applicable,Flammable liquid and vapour.
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	86 °C
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
pH	:	Not available
Viscosity, kinematic	:	Not available
Solubility	:	Not available
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	0.00132837 mm Hg (calculated value)
Vapour pressure at 50°C	:	Not available
Density	:	Not available
Relative density	:	Not available
Relative vapour density at 20°C	:	Not available
Particle characteristics	:	Not applicable

9.2. Other information

Other safety characteristics

VOC content : 4.672014 % (calculated value)(CARB VOC) (%w/w)

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

Flammable liquid and vapour. May form flammable/explosive vapour-air mixture. Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

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

Amyl salicylate (2050-08-0)	
LD50 oral rat	4100 mg/kg (Source: NZ_CCID)
LD50 oral	2000 mg/kg bodyweight
LD50 dermal rabbit	> 5000 mg/kg (Source: CHEMVIEW)

Cinnamic aldehyde (104-55-2)	
LD50 oral rat	2220 mg/kg (Source: NLM_CIP)
LD50 oral	2220 mg/kg
LD50 dermal rabbit	1260 mg/kg (Source: EPA_HPV)
LD50 dermal	1260 mg/kg

Eugenol (97-53-0)	
LD50 oral rat	1930 mg/kg (Source: NZ_CCID)
LD50 oral	2500 mg/kg bodyweight
LC50 Inhalation - Rat	> 2.58 mg/l/4h

(R)-p-mentha-1,8-diene; d-limonene (5989-27-5)	
LD50 oral rat	4400 mg/kg (Source: CHEMVIEW)
LD50 dermal rabbit	> 5 g/kg (Source: CHEMVIEW)

.alpha.-Pinene (80-56-8)	
LD50 oral rat	3700 mg/kg (Source: NLM_CIP)
LD50 dermal rat	> 5000 mg/kg (Source: CHEMVIEW)

Linalool (78-70-6)	
LD50 oral rat	2790 mg/kg (Source: NLM_CIP)
LD50 oral	2790 mg/kg
LD50 dermal rabbit	5610 mg/kg (Source: ECHA_API)

Linalyl acetate (115-95-7)	
LD50 oral rat	14550 mg/kg (Source: EPA_HPV)
LD50 dermal rabbit	> 5000 mg/kg (Source: ECHA)
LC50 Inhalation - Rat	> 18.94 mg/l (Exposure time: 8 h Source: ECHA)

.beta.-Pinene (127-91-3)	
LD50 oral rat	> 5000 mg/kg (Source: EPA_HPV)
LD50 dermal rabbit	> 5000 mg/kg (Source: CHEMVIEW)

Vanillin (121-33-5)	
LD50 dermal rabbit	> 5010 mg/kg (Source: OECD_SIDS)
LD50 dermal	2600 mg/kg bodyweight
Sandela (66068-84-6)	
LD50 dermal rat	> 2000 mg/kg (Source: ECHA_API)
LC50 Inhalation - Rat	> 5.27 mg/l/4h
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran; galaxolide; (HHCB) (1222-05-5)	
LD50 oral rat	> 3250 mg/kg (Source: CHEMVIEW)
LD50 dermal rabbit	> 3250 mg/kg (Source: CHEMVIEW)
LC50 Inhalation - Rat	> 5.04 mg/l/4h
Juniper berry oil (8002-68-4)	
LD50 oral rat	6280 mg/kg (Source: NLM_CIP)
LD50 dermal rabbit	> 5 g/kg (Source: NLM_HSDB)
Pimento oil (Allspice) (8006-77-7)	
LD50 oral rat	3600 mg/kg (Source: NLM_CIP)
Phenylacetaldehyde (122-78-1)	
LD50 oral	1550 mg/kg
Toluene (108-88-3)	
LD50 oral rat	2600 mg/kg (Source: JAPAN_GHS)
LD50 dermal rabbit	12000 mg/kg (Source: JAPAN_GHS)
LC50 Inhalation - Rat	12.5 mg/l/4h
Dipropylene glycol monomethyl ether (34590-94-8)	
LD50 oral rat	5.35 g/kg (Source: NLM_HSDB)
LD50 dermal rabbit	9500 mg/kg (Source: NLM_CIP)
Benzyl acetate (140-11-4)	
LD50 oral rat	2490 mg/kg (Source: JAPAN_GHS)
LD50 oral	2490 mg/kg bodyweight
LD50 dermal rabbit	> 5000 mg/kg (Source: JAPAN_GHS)
White Camphor oil (8008-51-3)	
LD50 oral rat	3730 mg/kg (Source: NLM_CIP)
Ginger oil (8007-08-7)	
LD50 oral rat	> 5 g/kg (Source: NLM_CIP)
1,2-Cyclopentanedione, 3-methyl- (765-70-8)	
LD50 oral	1067 mg/kg bodyweight
citral (5392-40-5)	
LD50 oral rat	4960 mg/kg (Source: NLM_CIP)
LD50 dermal rabbit	2250 mg/kg (Source: NLM_CIP)

Cinnamalva (1885-38-7)	
LD50 oral	100 mg/kg bodyweight
LD50 dermal	1100 mg/kg bodyweight
LC50 Inhalation - Rat (Dust/Mist)	1.5 mg/l/4h

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

Eugenol (97-53-0)	
IARC group	3 - Not classifiable

(R)-p-mentha-1,8-diene; d-limonene (5989-27-5)	
IARC group	3 - Not classifiable

Toluene (108-88-3)	
IARC group	3 - Not classifiable

Benzyl acetate (140-11-4)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

beta-Caryophyllene (87-44-5)	
Hydrocarbon	Yes

(R)-p-mentha-1,8-diene; d-limonene (5989-27-5)	
Hydrocarbon	Yes

.alpha.-Pinene (80-56-8)	
Hydrocarbon	Yes

.beta.-Pinene (127-91-3)	
Hydrocarbon	Yes

Toluene (108-88-3)	
Hydrocarbon	Yes

11.2. Information on other hazards

Other information

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met

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.

Eugenol (97-53-0)	
LC50 - Fish [1]	13 mg/l (Exposure time: 96 h - Species: Danio rerio [semi-static] Source: ECHA)

(R)-p-mentha-1,8-diene; d-limonene (5989-27-5)	
LC50 - Fish [1]	0.619 – 0.796 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: EPA)
LC50 - Fish [2]	35 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss Source: EPA)

.alpha.-Pinene (80-56-8)	
LC50 - Fish [1]	0.28 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: IUCLID)
EC50 - Crustacea [1]	41 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Linalool (78-70-6)	
LC50 - Fish [1]	27.8 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static] Source: ECHA)
EC50 - Crustacea [1]	20 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 96h - Algae [1]	88.3 mg/l (Species: Desmodesmus subspicatus)

Linalyl acetate (115-95-7)	
LC50 - Fish [1]	11 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [flow-through] Source: ECHA)

Vanillin (121-33-5)	
LC50 - Fish [1]	53 – 61.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: EPA)
LC50 - Fish [2]	88 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: EPA)
NOEC (acute)	10000 mg/kg (Exposure time: 42 Days - Species: Eisenia foetida [soil dry weight])

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran; galaxolide; (HHCB) (1222-05-5)	
LC50 - Fish [1]	0.452 mg/l Wolf, 1996d-27682
LC50 - Other aquatic organisms [1]	> 0.14 mg/l REACH DOSSIER Pimephales promelas
EC50 - Crustacea [2]	260 µg/l REACH Dossier
EC50 - Other aquatic organisms [1]	0.131 mg/l REACH Dossier

Toluene (108-88-3)	
LC50 - Fish [1]	15.22 – 19.05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: EPA)
LC50 - Fish [2]	12.6 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: EPA)
EC50 - Crustacea [1]	5.46 – 9.83 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
EC50 - Crustacea [2]	11.5 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 72h - Algae [1]	12.5 mg/l (Species: Pseudokirchneriella subcapitata [static])
EC50 96h - Algae [1]	> 433 mg/l (Species: Pseudokirchneriella subcapitata)

Dipropylene glycol monomethyl ether (34590-94-8)	
LC50 - Fish [1]	> 10000 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 - Crustacea [1]	1919 mg/l (Exposure time: 48 h - Species: Daphnia magna)

citral (5392-40-5)	
EC50 - Crustacea [1]	7 mg/l (Exposure time: 48 h - Species: Daphnia magna)

citral (5392-40-5)	
EC50 72h - Algae [1]	16 mg/l (Species: Desmodesmus subspicatus)
EC50 96h - Algae [1]	19 mg/l (Species: Desmodesmus subspicatus)

12.2. Persistence and degradability

SAFFRON #EU35406F	
Persistence and degradability	Not established.

Amyl salicylate (2050-08-0)	
Persistence and degradability	Rapidly degradable

Cinnamic aldehyde (104-55-2)	
Persistence and degradability	Rapidly degradable

Eugenol (97-53-0)	
Persistence and degradability	Rapidly degradable

Methyl pamplemousse (67674-46-8)	
Persistence and degradability	Rapidly degradable

beta-Caryophyllene (87-44-5)	
Persistence and degradability	Rapidly degradable

(R)-p-mentha-1,8-diene; d-limonene (5989-27-5)	
Persistence and degradability	Rapidly degradable

.alpha.-Pinene (80-56-8)	
Persistence and degradability	Rapidly degradable

Linalool (78-70-6)	
Persistence and degradability	Rapidly degradable

Linalyl acetate (115-95-7)	
Persistence and degradability	Rapidly degradable

.beta.-Pinene (127-91-3)	
Persistence and degradability	Rapidly degradable

Vanillin (121-33-5)	
Persistence and degradability	Not established.

Sandela (66068-84-6)	
Persistence and degradability	Rapidly degradable

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran; galaxolide; (HHCB) (1222-05-5)	
Persistence and degradability	Rapidly degradable

Juniper berry oil (8002-68-4)	
Persistence and degradability	Rapidly degradable

Pimento oil (Allspice) (8006-77-7)	
Persistence and degradability	Rapidly degradable

Phenylacetaldehyde (122-78-1)	
Persistence and degradability	Rapidly degradable

Galbanum oil (8023-91-4)	
Persistence and degradability	Rapidly degradable

Toluene (108-88-3)	
Persistence and degradability	Rapidly degradable

Dipropylene glycol monomethyl ether (34590-94-8)	
Persistence and degradability	Rapidly degradable

Benzyl acetate (140-11-4)	
Persistence and degradability	Rapidly degradable

White Camphor oil (8008-51-3)	
Persistence and degradability	Rapidly degradable

Ginger oil (8007-08-7)	
Persistence and degradability	Rapidly degradable

1,2-Cyclopentanedione, 3-methyl- (765-70-8)	
Persistence and degradability	Rapidly degradable

citral (5392-40-5)	
Persistence and degradability	Rapidly degradable

Cinnamalva (1885-38-7)	
Persistence and degradability	Rapidly degradable

12.3. Bioaccumulative potential

SAFFRON #EU35406F	
Bioaccumulative potential	Not established.

Amyl salicylate (2050-08-0)	
BCF - Fish [1]	(1170 dimensionless (whole body w.w.)
Partition coefficient n-octanol/water (Log Pow)	4.5 (at 30 °C)

Cinnamic aldehyde (104-55-2)	
Partition coefficient n-octanol/water (Log Pow)	2.1065 (at 25 °C)

Eugenol (97-53-0)	
Partition coefficient n-octanol/water (Log Pow)	1.83 (at 30 °C (at pH 5.5)

Methyl pamplemousse (67674-46-8)	
Partition coefficient n-octanol/water (Log Pow)	3.8 (at 35 °C (at pH 7)

beta-Caryophyllene (87-44-5)	
Partition coefficient n-octanol/water (Log Pow)	6.23 (at 25 °C (at pH 7)

(R)-p-mentha-1,8-diene; d-limonene (5989-27-5)	
Partition coefficient n-octanol/water (Log Pow)	4.38 (at 37 °C (at pH 7.2)

.alpha.-Pinene (80-56-8)	
Partition coefficient n-octanol/water (Log Pow)	4.1
Linalool (78-70-6)	
Partition coefficient n-octanol/water (Log Pow)	2.9 (at 20 °C (at pH 7)
Linalyl acetate (115-95-7)	
Partition coefficient n-octanol/water (Log Pow)	3.9 (at 25 °C)
.beta.-Pinene (127-91-3)	
Partition coefficient n-octanol/water (Log Pow)	4.4 (at 25 °C)
Vanillin (121-33-5)	
Partition coefficient n-octanol/water (Log Pow)	1.23 (at 22 °C)
Bioaccumulative potential	Not established.
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran; galaxolide; (HHCB) (1222-05-5)	
BCF - Fish [1]	(1618 dimensionless (whole body w.w.)
Partition coefficient n-octanol/water (Log Pow)	5.3 (at 25 °C (at pH 7)
Phenylacetaldehyde (122-78-1)	
Partition coefficient n-octanol/water (Log Pow)	1.44 (at 25 °C (at pH 6.4)
Toluene (108-88-3)	
Partition coefficient n-octanol/water (Log Pow)	2.73 (at 20 °C (at pH 7)
Dipropylene glycol monomethyl ether (34590-94-8)	
Partition coefficient n-octanol/water (Log Pow)	0.35 (at 25 °C (at pH 7)
Benzyl acetate (140-11-4)	
Partition coefficient n-octanol/water (Log Pow)	1.96 (at 25 °C (at pH 7)
1,2-Cyclopentanedione, 3-methyl- (765-70-8)	
Partition coefficient n-octanol/water (Log Pow)	-0.54 (calculated value)
citral (5392-40-5)	
Partition coefficient n-octanol/water (Log Pow)	2.76 (at 25 °C)
Cinnamalva (1885-38-7)	
Partition coefficient n-octanol/water (Log Pow)	1.96

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

SAFFRON #EU35406F	
Other information	Avoid release to the environment.

Vanillin (121-33-5)	
Other information	Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

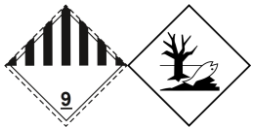
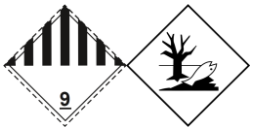
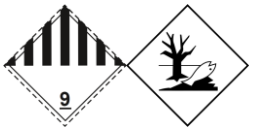
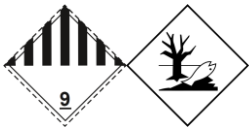
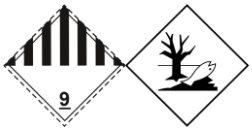
Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container in accordance with local/national laws and regulations.

Ecological waste information : Avoid release to the environment.

HP Code : HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

SECTION 14: Transport information

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

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. (Amyl Salicylate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Amyl Salicylate)	Environmentally hazardous substance, liquid, n.o.s. (Amyl Salicylate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Amyl Salicylate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Amyl Salicylate)
Transport document description				
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Amyl Salicylate), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Amyl Salicylate), 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Amyl Salicylate), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Amyl Salicylate), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Amyl Salicylate), 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

ADR	IMDG	IATA	ADN	RID
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)	:	5l
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
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

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(a)	d-Limonene ; .alpha.-Pinene ; .beta.-Pinene ; Juniper berry oil ; Galbanum oil ; White Camphor oil	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 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
3(b)	SAFFRON #EU35406F ; Amyl salicylate ; Cinnamic aldehyde ; Eugenol ; Methyl pamplemousse ; beta-Caryophyllene ; d-Limonene ; .alpha.-Pinene ; Linalool ; Linalyl acetate ; Sandela ; Juniper berry oil ; Pimento oil (Allspice) ; Phenylacetaldehyde ; Galbanum oil ; White Camphor oil ; Ginger oil ; Citral ; Cinnamalva	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

EU restriction list (REACH Annex XVII)		
Reference code	**Applicable on**	**Entry title or description**
3(c)	SAFFRON #EU35406F ; Amyl salicylate ; Cinnamic aldehyde ; Methyl pamplemousse ; d-Limonene ; .alpha.-Pinene ; Sandela ; Hexamethylindanopyran ; Juniper berry oil ; Pimento oil (Allspice) ; Phenylacetaldehyde ; Galbanum oil ; Benzyl acetate ; White Camphor oil ; Ginger oil	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
48.	Toluene	Toluene

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

VOC Directive (2004/42)

VOC content : 4.672014 % (calculated value)(CARB VOC) (%w/w)

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
Toluene		108-88-3	2902 30 00	Category 3		Annex I

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Other information : None.

Full text of H- and EUH-statements:	
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3

Full text of H- and EUH-statements:	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
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
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 2	Carcinogenicity, Category 2
EUH208	Contains {0|message≤name of sensitising substance>|fieldvalue=_SENSITIZER_COMPONENTS}. May produce an allergic reaction.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Muta. 2	Germ cell mutagenicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1A	Skin sensitisation, category 1A
Skin Sens. 1B	Skin sensitisation, category 1B
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H361fd	Suspected of damaging fertility. 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.

The classification complies with : ATP 12

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.