

YZS-015I Amyris



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SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2015/830)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : Amyris
Product code : YZS-015I

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

Perfumed composition

1.3. Details of the supplier of the safety data sheet

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SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Skin sensitisation, Category 1B (Skin Sens. 1B, H317).

Reproductive toxicity, Category 2 (Repr. 2, H361).

Hazardous to the aquatic environment - Chronic hazard, Category 2 (Aquatic Chronic 2, H411).

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

2.2. Label elements

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :



GHS09



GHS07



GHS08

Signal Word :

WARNING

Product identifiers :

EC 202-983-3	ALPHA-HEXYL CINNAMIC ALDEHYDE (HCA)
EC 201-289-8	P-TERT-BUTYL-ALPHA-METHYLHYDROCINNAMIC ALDEHYDE (LILIAL)
EC 259-174-3	OTNE [1-(1,2,3,4,5,6,7,8-OCTAHYDRO-2,3,8,8-TETRAMETHYL-2-NAPHTALENYL)-ETHANONE
EC 251-020-3	ACETYL CEDRENE
EC 202-590-7	ISOEUGENOL

Hazard statements :

H317	May cause an allergic skin reaction.
H361f	Suspected of damaging fertility.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements - Prevention :

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
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.

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Precautionary statements - Response :

P302 + P352 IF ON SKIN: Wash with plenty of water/...
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P321 Specific treatment (see ... on this label).
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.

Precautionary statements - Storage :

P405 Store locked up.

Precautionary statements - Disposal :

P501 Dispose of contents/container to ...

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) $\geq 0.1\%$ published by the European Chemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Identification	(EC) 1272/2008	Note	%
INDEX: I101_86_0 CAS: 101-86-0 EC: 202-983-3 REACH: 01-2119533092-50 ALPHA-HEXYL CINNAMIC ALDEHYDE (HCA)	GHS07, GHS09 Wng Skin Sens. 1B, H317 Aquatic Chronic 2, H411 Aquatic Acute 1, H400 M Acute = 1		2.5 <= x % < 10
INDEX: 603-057-00-5 CAS: 100-51-6 EC: 202-859-9 BENZYL ALCOHOL	GHS07 Wng Acute Tox. 4, H332 Acute Tox. 4, H302		2.5 <= x % < 10
INDEX: I80_54_6 CAS: 80-54-6 EC: 201-289-8 REACH: 01-2119485965-18-0000 P-TERT-BUTYL-ALPHA-METHYLHYDROCI NNAMIC ALDEHYDE (LILIAL)	GHS08, GHS07, GHS09 Wng Acute Tox. 4, H302 Repr. 2, H361f Skin Irrit. 2, H315 Skin Sens. 1B, H317 Aquatic Chronic 2, H411	[2]	2.5 <= x % < 10
INDEX: I54464_57_2 CAS: 54464-57-2 EC: 259-174-3 REACH: 01-2119489989-04-0000 OTNE [1-(1,2,3,4,5,6,7,8-OCTAHYDRO-2,3,8,8-TETR AMETHYL-2-NAPHTALENYL)-ETHANONE	GHS07, GHS09 Wng Skin Irrit. 2, H315 Skin Sens. 1B, H317 Aquatic Chronic 1, H410 M Chronic = 1		2.5 <= x % < 10
INDEX: I_HYDROC HYDROCARBONS	GHS08 Dgr Asp. Tox. 1, H304		2.5 <= x % < 10
INDEX: I32388_55_9 CAS: 32388-55-9 EC: 251-020-3 ACETYL CEDRENE	GHS07, GHS09 Wng Skin Sens. 1B, H317 Aquatic Acute 1, H400 M Acute = 1 Aquatic Chronic 1, H410 M Chronic = 1		2.5 <= x % < 10

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INDEX: I27606_09_3 CAS: 27606-09-3 EC: 248-561-2 2,4-DIMETHYL-4,4A,5,9B-TETRAHYDROIN DENO [1,2-D]-1,3-DIOXIN (MAGNOLAN)	GHS07 Wng Acute Tox. 4, H302		0 <= x % < 2.5
INDEX: I28219_61_6 CAS: 28219-61-6 EC: 248-908-8 2-ETHYL-4-(2,2,3-TRIMETHYL-3-CYCLOPE NTEN-1-YL)-2-BUTEN-1-OL	GHS07, GHS09 Wng Eye Irrit. 2, H319 Aquatic Acute 1, H400 M Acute = 1 Aquatic Chronic 1, H410 M Chronic = 1		0 <= x % < 2.5
INDEX: I469_61_4 CAS: 469-61-4 EC: 207-418-4 ALPHA CEDRENE	GHS08, GHS09 Dgr Asp. Tox. 1, H304 Aquatic Acute 1, H400 M Acute = 10 Aquatic Chronic 1, H410 M Chronic = 10		0 <= x % < 2.5
INDEX: 609-069-00-7 CAS: 81-14-1 EC: 201-328-9 MUSK KETONE	GHS08, GHS09 Wng Carc. 2, H351 Aquatic Acute 1, H400 M Acute = 1 Aquatic Chronic 1, H410 M Chronic = 1	[2]	0 <= x % < 2.5
INDEX: I97_54_1 CAS: 97-54-1 EC: 202-590-7 ISOEUGENOL	GHS07 Wng Acute Tox. 4, H312 Acute Tox. 4, H302 Eye Irrit. 2, H319 Skin Irrit. 2, H315 Skin Sens. 1A, H317		0 <= x % < 2.5

Information on ingredients :

[2] Carcinogenic, mutagenic or reprotoxic (CMR) substance.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures

In the event of splashes or contact with eyes :

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

In the event of splashes or contact with skin :

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

In the event of an allergic reaction, seek medical attention.

If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

In the event of swallowing :

Do not give the patient anything orally.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Keep the person exposed at rest. Do not force vomiting.

Seek medical attention immediately, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

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

No data available.

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

No data available.

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SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media

Suitable methods of extinction

In the event of a fire, use :

- sprayed water or water mist
- foam
- multipurpose ABC powder
- BC powder
- carbon dioxide (CO₂)

Unsuitable methods of extinction

In the event of a fire, do not use :

- water jet

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

5.3. Advice for firefighters

No data available.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For non first aid worker

Avoid any contact with the skin and eyes.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

Individuals with a history of skin sensitisation should not, under any circumstance, handle this mixture.

Avoid exposure to pregnant women and warn women of child-bearing age of the possible risks

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Ensure that there is adequate ventilation, especially in confined areas.

Fire prevention :

Handle in well-ventilated areas.

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Avoid exposure - obtain special instructions before use.

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Packages which have been opened must be reclosed carefully and stored in an upright position.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Storage

Keep the container tightly closed in a dry, well-ventilated place.

The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No data available.

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

OTNE [1-(1,2,3,4,5,6,7,8-OCTAHYDRO-2,3,8,8-TETRAMETHYL-2-NAPHTALENYL)-ETHANONE (CAS: 54464-57-2)

Final use:	Workers.
Exposure method:	Dermal contact.
Potential health effects:	Short term local effects.
DNEL :	101.1 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	1.73 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	1.76 mg of substance/m3
Final use:	Consumers.
Exposure method:	Ingestion.
Potential health effects:	Long term systemic effects.
DNEL :	0.25 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Short term local effects.
DNEL :	50.6 µg of substance/cm2
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	0.86 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	0.43 mg of substance/m3

P-TERT-BUTYL-ALPHA-METHYLHYDROCINNAMIC ALDEHYDE (LILIAL) (CAS: 80-54-6)

Final use:	Workers.
Exposure method:	Dermal contact.
Potential health effects:	Short term local effects.
DNEL :	0.41 mg of substance/cm2
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.

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DNEL : 2.075 mg/kg body weight/day

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 0.44 mg of substance/m3

Final use: **Consumers.**
Exposure method: Ingestion.
Potential health effects: Long term systemic effects.
DNEL : 0.0625 mg/kg body weight/day

Exposure method: Dermal contact.
Potential health effects: Long term systemic effects.
DNEL : 1.0375 mg/kg body weight/day

Exposure method: Dermal contact.
Potential health effects: Short term local effects.
DNEL : 0.41 mg of substance/cm2

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 0.11 mg of substance/m3

ALPHA-HEXYL CINNAMIC ALDEHYDE (HCA) (CAS: 101-86-0)

Final use: **Workers.**
Exposure method: Dermal contact.
Potential health effects: Short term local effects.
DNEL : 0.525 mg of substance/cm2

Exposure method: Dermal contact.
Potential health effects: Long term systemic effects.
DNEL : 18.2 mg/kg body weight/day

Exposure method: Dermal contact.
Potential health effects: Long term local effects.
DNEL : 0.525 mg of substance/cm2

Exposure method: Inhalation.
Potential health effects: Short term local effects.
DNEL : 6.28 mg of substance/m3

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 0.078 mg of substance/m3

Predicted no effect concentration (PNEC):

OTNE [1-(1,2,3,4,5,6,7,8-OCTAHYDRO-2,3,8-TETRAMETHYL-2-NAPHTALENYL)-ETHANONE (CAS: 54464-57-2)

Environmental compartment: Soil.
PNEC : 0.705 mg/kg

Environmental compartment: Fresh water.
PNEC : 2.8 µg/l

Environmental compartment: Sea water.
PNEC : 0.28 µg/l

Environmental compartment: Intermittent waste water.
PNEC : 13 µg/l

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Environmental compartment: Fresh water sediment.
PNEC : 3.73 mg/kg

Environmental compartment: Marine sediment.
PNEC : 0.75 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 10 mg/l

P-TERT-BUTYL-ALPHA-METHYLHYDROCINNAMIC ALDEHYDE (LILIAL) (CAS: 80-54-6)

Environmental compartment: Soil.
PNEC : 0.0525 mg/kg

Environmental compartment: Fresh water.
PNEC : 0.00204 mg/l

Environmental compartment: Sea water.
PNEC : 0.0002 mg/l

Environmental compartment: Intermittent waste water.
PNEC : 0.024 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 0.269 mg/l

Environmental compartment: Marine sediment.
PNEC : 0.0269 mg/l

Environmental compartment: Waste water treatment plant.
PNEC : 10 mg/l

ALPHA-HEXYL CINNAMIC ALDEHYDE (HCA) (CAS: 101-86-0)

Environmental compartment: Soil.
PNEC : 9.51 mg/kg

Environmental compartment: Fresh water.
PNEC : 0.03 mg/l

Environmental compartment: Sea water.
PNEC : 0.003 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 4.7 mg/kg

Environmental compartment: Marine sediment.
PNEC : 4.77 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 10 mg/l

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.
Store personal protective equipment in a clean place, away from the work area.

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Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles in accordance with standard EN166.

- Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))

- PVA (Polyvinyl alcohol)

Recommended properties :

- Impervious gloves in accordance with standard EN374

- Body protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034 to prevent skin contact.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information :

Physical state : Fluid liquid.

Important health, safety and environmental information

pH :	Not relevant.
Boiling point/boiling range :	Not specified.
Flash Point Interval :	FP > 100°C.
Vapour pressure (50°C) :	Not relevant.
Density :	Not stated.
Water solubility :	Insoluble.
Viscosity:	$\nu < 7 \text{ mm}^2/\text{s}$ (40°C)
Melting point/melting range :	Not specified.
Self-ignition temperature :	Not specified.
Decomposition point/decomposition range :	Not specified.

9.2. Other information

No data available.

SECTION 10 : STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

Stockage : 1 year secure from air and light and heat

10.3. Possibility of hazardous reactions

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

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10.4. Conditions to avoid

Avoid temperatures close to flash point (see paragraph 9)

Avoid direct sources of heat

10.5. Incompatible materials

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)

- carbon dioxide (CO₂)

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Exposure to vapours from solvents in the mixture in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system.

Symptoms produced will include headaches, numbness, dizziness, fatigue, muscular asthenia and, in extreme cases, loss of consciousness.

Repeated or prolonged contact with the mixture may cause removal of natural oil from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Splashes in the eyes may cause irritation and reversible damage

May cause an allergic reaction by skin contact.

Suspected human reproductive toxicant.

Suspected of damaging fertility.

11.1.1. Substances

Acute toxicity :

ISOEUGENOL (CAS: 97-54-1)

Oral route : LD50 = 1500 mg/kg

Dermal route : LD50 = 1900 mg/kg

P-TERT-BUTYL-ALPHA-METHYLHYDROCINNAMIC ALDEHYDE (LILIAL) (CAS: 80-54-6)

Oral route : LD50 = 1390 mg/kg

ALPHA-HEXYL CINNAMIC ALDEHYDE (HCA) (CAS: 101-86-0)

Oral route : LD50 = 3100 mg/kg

11.1.2. Mixture

No toxicological data available for the mixture.

SECTION 12 : ECOLOGICAL INFORMATION

Toxic to aquatic life with long lasting effects.

The product must not be allowed to run into drains or waterways.

12.1. Toxicity

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

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SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2015 - IMDG 2014 - ICAO/IATA 2016).

14.1. UN number

3082

14.2. UN proper shipping name

UN3082=ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(alpha cedrene)

14.3. Transport hazard class(es)

- Classification :



9

14.4. Packing group

III

14.5. Environmental hazards

- Environmentally hazardous material :



14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	9	M6	III	9	90	5 L	274 335 375 601	E1	3	E

Not subject to this regulation if Q <= 5 l / 5 kg (ADR 3.3.1 - DS 375)

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ
	9	-	III	5 L	F-A,S-F	274 335 969	E1

Not subject to this regulation if Q <= 5 l / 5 kg (IMDG 3.3.1 - 2.10.2.7)

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	9	-	III	964	450 L	964	450 L	A97 A158 A197	E1
	9	-	III	Y964	30 kg G	-	-	A97 A158 A197	E1

Not subject to this regulation if Q <= 5 l / 5 kg (IATA 4.4.4 - DS A197)

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

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14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available.

SECTION 15 : REGULATORY INFORMATION

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

- Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2016/1179. (ATP 9)

- Container information:

No data available.

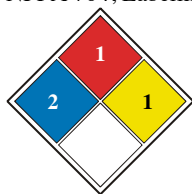
- Particular provisions :

No data available.

- Standardised American system for the identification of hazards presented by the product in view of emergency procedures (NFPA 704)

:

NFPA 704, Labelling: Health=2 Inflammability=1 Instability/Reactivity=1 Specific Risk=none



15.2. Chemical safety assessment

No data available.

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Wording of the phrases mentioned in section 3 :

H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H351	Suspected of causing cancer .
H361f	Suspected of damaging fertility.
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.

Abbreviations :

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

CMR: Carcinogenic, mutagenic or reprotoxic.

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

WGK : Wassergefährdungsklasse (Water Hazard Class).

GHS07 : Exclamation mark

GHS08 : Health hazard

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GHS09 : Environment

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.

List of Allergenic Compounds

According Regulation 1223/2009/CE

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INCI Name	N° Cas	N° EINECS	Concentration (in %)
Alpha-Isomethyl Ionone	127-51-5	204-846-3	---
Amyl Cinnamal	122-40-7	204-541-5	---
Amylcinnamyl Alcohol	101-85-9	202-982-8	---
Anise Alcohol	105-13-5	203-273-6	0.002
Benzyl Alcohol	100-51-6	202-859-9	5.837
Benzyl Benzoate	120-51-4	204-402-9	---
Benzyl Cinnamate	103-41-3	203-109-3	---
Benzyl Salicylate	118-58-1	204-262-9	---
Butylphenyl Methylpropional	80-54-6	201-289-8	5.000
Cinnamal	104-55-2	203-213-9	---
Cinnamyl Alcohol	104-54-1	203-212-3	---
Citral	5392-40-5	226-394-6	---
Citronellol	106-22-9	203-375-0	---
Coumarin	91-64-5	202-086-7	---
Eugenol	97-53-0	202-589-1	0.008
Evernia Furfuracea (Treemoss) extract	90028-67-4	289-860-8	---
Evernia Prunastri (Oakmoss) extract	90028-68-5	289-861-3	---
Farnesol	4602-84-0	225-004-1	---
Geraniol	106-24-1	203-377-1	---
Hexyl Cinnamal	101-86-0	202-983-3	6.667
Hydroxycitronellal	107-75-5	203-518-7	---
Hydroxyisohexyl 3-Cyclohexene Carboxaldehyde	31906-04-4	250-863-4	---
Isoeugenol	97-54-1	202-590-7	0.033
Limonene	5989-27-5	227-813-5	---
Linalool	78-70-6	201-134-4	---
Methyl 2-octynoate	111-12-6	203-836-6	---

This certificate is generated by calculation based on data for ingredients.

The information contained herein is, to the best of our knowledge, true and accurate at the time it is given. It is your responsibility to ensure that the usage of the fragrance ingredients and the levels of such usage are permitted at all times according to the relevant laws and regulations.

Detection limit of calculation is 10 ppm.

'---' = Levels of material less than 10 ppm

IFRA Conformity Certificate

Attn to : GILDEWERK BV

We certify that the above compound is in compliance with the standards of the INTERNATIONAL FRAGRANCE ASSOCIATION (IFRA – 48th amendment published 10 June 2015), provided it is used in the following application(s) at a maximum concentration level of :

IFRA class(es) (see annex for detail)	Maximum level of use (%)
1	0,00
2	3,00
3.A	12,40
3.B	12,40
3.C	12,40
3.D	12,40
4.A	37,20
4.B	37,20
4.C	37,20
4.D	37,20
5	19,60
6	0,00
7.A	6,20
7.B	6,20
8.A	30,00
8.B	30,00
9.A	60,00
9.B	60,00
9.C	60,00
10.A	37,50
10.B	37,50
11	100,00

For other kinds of application or use at higher concentration levels, a new evaluation may be needed; please contact Technico-Flor.

The IFRA standards regarding use restriction are based on safety assessments by the Panel of Experts of the RESEARCH INSTITUTE FOR FRAGRANCE MATERIALS (RIFM) and are enforced by the IFRA Scientific Committee.

Evaluation of individual Fragrance ingredients is made according to the safety standards contained in the relevant section of the IFRA code of Practice.

It is the ultimate responsibility of our customer to ensure the safety of the final product (containing this fragrance) by further testing if need be.

Issue date : 02/05/2017

Signature (if generated electronically, no signature)

Disclaimer :

This Certificate provide restrictions for use of the specified product based only on those materials restricted by IFRA Standards for the toxicity endpoint(s) described in each Standard. This Certificate does not provide certification of a comprehensive safety assessment of all product constituents.

ANNEX : Definition of IFRA Class

Finished products types	IFRA class
Toys; Lip Products of all types (solid and liquid lipsticks, balms, clear or colored etc...) Lip wax;	1
Deodorant and antiperspirant products of all types including any product with intended or reasonably foreseeable use on the axillae or labelled as such (spray, stick, roll-on, under-arm deo-cologne and body spray, etc.). Nose pore strips. Fragranced bracelets.	2
Hydroalcoholic products applied to recently shaved skin (EdT range)	3.A
Hydroalcoholic products applied to recently shaved skin (fine fragrance range)	3.B
Eye products of all types (eye shadow, mascara, eyeliner, eye make-up, etc.) including eye care. Men's facial creams and balms. Baby creams, lotions, oils. Body paint for children.	3.C
Tampons	3.D
Hydro alcoholic products applied to unshaved skin (includes aqueous based, alcoholic based and hydro alcoholic) like Cologne, eau de Cologne, Eau de Parfum or Parfum (EDT range). Ingredients of perfume kits. Scent packs, foil packs. Scent strips for hydro alcoholic products.	4.A
Hydro alcoholic products applied to unshaved skin (includes aqueous based, alcoholic based and hydro alcoholic) like Cologne, eau de Cologne, Eau de Parfum or Parfum (Fine Fragrance range). Solid perfumes.	4.B
Hair styling aids sprays of all types (pumps, aerosol sprays, etc.). Body creams, oils, lotions of all types (except baby creams, lotions and oils). Body sprays (including body mists) with no intended or reasonably foreseeable use on the axillae. Fragrance compound for cosmetic kits. Foot care products. Hair deodorant. Body paint (except those for children).	4.C
Fragrancing Creams of all types	4.D
Women's facial cream/facial make-up. Hand cream. Hand sanitizers. Facial masks. Baby powder and talc. Hair permanent and other hair chemical treatments (e. g. relaxers) but not hair dyes. Wipes or refreshing tissues for face, neck, hands, body. Dry shampoo or waterless shampoo.	5
Mouthwash including Breath sprays, Toothpaste	6
Intimate wipes, baby wipes.	7.A
Insect repellent (intended to be applied to the skin).	7.B
Make-up removers of all types (not including face cleansers). Hair styling aids non-spray of all types (mousse, gels, leave-on conditioners). Nail care. Powders and talcs, all types (except baby powders and talcs).	8.A
Hair dyes	8.B
Conditioner (rinse-off). Liquid soap. Shampoos of all types (including baby shampoos). Face cleansers of all types (washes gels, scrubs, etc.). Shaving creams of all types (stick, gels, foams, etc.). All depilatories (including waxes for mechanical hair removal). Body washes of all types (including baby washes) and shower gels of all types. Bar soap (toilet soap). Bath gels, foams, mousses, salts, oils and other products added to bath water.	9.A
Feminine hygiene – pads, liners. Toilet paper. Wheat bags.	9.B
Facial tissues. Fragranced masks (or surgical masks). Napkins. Paper towels. Other aerosols (including air freshener sprays and air freshener pump sprays, but not including deodorants/antiperspirants, hair styling aids sprays).	9.C
Hand wash laundry detergents of all types including concentrates. Fabric softeners of all types including fabric softener sheets. Household cleaning products, other types (fabric cleaners, soft surface cleaners, carpet cleaners, etc.). Machine wash laundry detergents (liquids, powders, tablets, etc.) including laundry bleach and concentrates. Hand dishwashing detergents including concentrates. Hard surface cleaners of all types (bathroom and kitchen cleansers, furniture polish, etc.). Shampoos for pets. Dry cleaning kits. Scented gloves, socks, tights with moisturizers.	10.A
Diapers, Toilet seat wipes	10.B
All non-skin contact or incidental skin contact products including: Candles. Air fresheners and fragrancing of all types (concentrated aerosol with metered doses, range 0.05-0.5mL/spray), plugs-ins, solid substrate, membrane delivery, electrical). Air delivery systems. Cell phone cases. Pot pourri, powders, fragrancing sachets, liquid refills for air fresheners (non-cartridge systems), reed diffusers. Liquid refills for air fresheners (cartridge systems). Shoe polishes. Deodorizers/maskers not intended for skin contact (e. g. fabric drying machine deodorizers, carpet powders). Insecticides (mosquito coil, paper, electrical, for clothing, etc.) excluding aerosols. Scent delivery system using a dry air technology that releases a fragrance without sprays, aerosols or heated oils (technology of nebulization). Air freshening crystals. Toilet blocks. Joss sticks or incense sticks. Machine dishwash detergent and deodorizers. Machine-only laundry detergent (e. g. liquid tabs). Plastic articles (excluding toys). Fuels. Fragranced lamp ring. Scratch and Sniff (sampling technology). Paints. Cat litter. Animals sprays (all types). Treatment products for textiles (e. g. starch sprays, fabric treated with fragrances after wash, deodorizers for textiles or fabrics). Floor wax. Odored distilled water (that can be added to steam irons).	11

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IFRA Regulated Substances

Name	N° Cas	N° EINECS	Standard	%
2-(4-TERT BUTYL BENZYL)PROPIONALDEHYDE (LILIAL/BMHCA)	80-54-6	201-289-8	R	5.000
2-ACETONAPHTHONE-1,2,3,4,5,6,7,8-OCTAHYDRO-2,3,8,8-TETRAMETHYL	54464-57-2	259-174-3	R	4.167
ALPHA-HEXYLCINNAMALDEHYDE	101-86-0	202-983-3	R	6.667
ANISALDEHYDE (P-METHOXYBENZALDEHYDE)	123-11-5	204-602-6	R	0.833
ANISYL ALCOHOL	105-13-5	203-273-6	R	0.002
BENZYL ALCOHOL	100-51-6	202-859-9	R	5.837
EUGENOL	97-53-0	202-589-1	R	0.008
ISOEUGENOL	97-54-1	202-590-7	R	0.033
META-BMHCA	62518-65-4		R	0.005

R-N = substances potentially generating of nitrosamines.

P = PROHIBITED (except authorized traces)

R = quantitative Restriction

S = physico-chemicals Spécifications

Limites d'indication : 0,001 % (10 ppm); all substances below 10 ppm are not reported.
