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

1.1 Product identifier

Product name:	LE BONE EASY CHERRY
Product code:	37577
UFI code:	Q2F2-D9QR-EG3A-98RT

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

Car air freshner.

1.3 Details of the supplier of the safety data sheet

Company name:	Lampa S.p.A.
Address:	Via G. Rossa, 53,55 (z.i. Gerbolina) 46019 Viadana (MN)
Telephone number:	+39 0375 820700
Fax:	+39 0375 820800
Competent person responsible for the SDS:	info@lampa.it

1.4 Emergency telephone number

CAVp "Osp. Pediatrico Bambino Gesù" - Roma	Tel. +39 06 68593726
Az. Osp. Univ. Foggia	Tel. +39 0881 732326
Az. Osp. "A. Cardarelli" – Napoli	Tel. +39 081 7472870
CAV Policlinico "Umberto I" – Roma	Tel. +39 06 49978000
CAV Policlinico "A. Gemelli" – Roma	Tel. +39 06 3054343
Az. Osp. "Careggi" U.O. Tossicologia Medica – Firenze	Tel. +39 055 7947819
CAV Centro Nazionale di Informazione Tossicologica – Pavia	Tel. +39 0382 24444
Osp. Niguarda Ca' Granda – Milano	Tel. +39 02 66101029
Azienda Ospedaliera Papa Giovanni XXII – Bergamo	Tel. +39 800 883300
Azienda Ospedaliera Universitaria Integrata Verona	Tel. +39 800 011858

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

The product is dangerous according to Regulation (EC) 1272/2008 and subsequent amendments.

EC regulation criteria 1272/2008 (CLP):

Skin Sens.1 H317
Aquatic Chronic 3 H412

2.2 Label elements

Pictograms:

Statement: Warning

H Phrases: H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P102 Keep out of reach of children.
P264 Wash hands thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection
P302 + P352 IF ON SKIN: Wash with plenty of water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P501 Dispose of contents/container in accordance with local/regional/national regulations

Contains: Coumarin, linalool, piperonal, D-limonene, 2,3-epoxy-3-phenylbutyrate-di-ethyl, cinnamaldehyde, eugenol, geraniol.

2.3 Other hazards

vPvB Substances: None - PBT Substances: None

SECTION 3: COMPOSITION / INFORMATION ON THE INGREDIENTS

3.1 Substances

N.A.

3.2 Mixtures

1.CAS No **2.EC No** **3.Index No** **4.REACH No**	**Name**	**Weight (%)**	**Classification 1272/2008 (CLP)**
1.100-52-7 **2.202-860-4** **3.605-012-00-5** **4.01-2119455540-44-XXXX**	benzaldehyde	5-7	Acute Tox. 4; H302 Eye Irrit. 2; H319 Acute Tox. 4; H332 STOT SE 3; H335
1.64742-47-8 **2.265-149-8** **3.Not Available** **4.Not Available**	Distillates (petroleum), hydrotreated light	5-7	Aquatic Chronic.:2 H411 Asp. Tox.:1 H304 STOT SE.:3 H336
1.120-51-4 **2.204-402-9** **3.Not Available** **4.Not Available**	Benzyl benzoate	2.5-5	Acute Tox. 4; H302 Aquatic Chronic 2; H411
1.90622-58-5 **2.292-460-6** **3.Not Available** **4.Not Available**	alkanes, -C11-15-iso	5-10	Asp. Tox.: 1; H304
1.140-11-4 **2.205-399-7** **3.Not Available** **4.01-2119638272-42-XXXX**	benzyl-acetate	0.25-1.5	Aquatic Chronic 3; H412
1.91-64-5 **2.202-086-7** **3.Not Available** **4.01-2119943756-26-XXXX**	Coumarin	0.25-1.5	Asp. Tox. 4; H302 Skin Sens. 1; H317 STOT RE 2 H373
1.127519-17-9 **2.407-000-3** **3.Not Available** **4.Not Available**	TINUVIN 384	0.25-1.5	Aquatic Chronic.:2 H411

1.129757-67-1 **2.406-750-9** **3.Not Available** **4.Not Available**	TINUVIN 123	0.25-1.5	Aquatic Chronic.:2 H411
1.104-67-6 **2.203-225-4** **3.Not Available** **4.01-2119959333-34-XXXX**	undecan-4-olide	0.25-1.25	Aquatic Chronic 3; H412
1.78-70-6 **2.201-134-4** **3.603-235-00-2** **4.01-2119474016-42-XXXX**	linalool	0.25-1.25	Skin Irrit. 2; H315 Skin Sens. 1; H317 Eye Irrit. 2; H319
1.79-77-6 **2.201-224-3** **3.Not Available** **4.01-2119449921-34-XXXX**	(E) -4- (2,6,6-trimethyl-1-cyclohexene-1-yl) -3-buten-2-one	0.03-2.5	Aquatic Chronic 2; H411
1.93-18-5 **2.202-226-7** **3.Not Available** **4.01-2120176465-49-XXXX**	ethyl-and-2-naphthyl-oxide	0.03-2.5	Skin Irrit. 2; H315 Aquatic Chronic 2; H411
1.120-57-0 **2.204-409-7** **3.Not Available** **4.Not Available**	piperonal	0.03-2.5	Skin Sens. 1; H317
1.5989-27-5 **2.227-813-5** **3.Not Available** **4.Not Available**	D-limonene	0.03-2.5	Flam. Liq 3 ; H226 Asp. Tox. 1 ; H304 Skin Irrit. 2 ; H315 Skin Sens. 1 ; H317 Aquatic Acute 1; H400 Aquatic Chronic 1 ; H410
1.77-83-8 **2.201-061-8** **3.Not Available** **4.01-2119967770-28-XXXX**	2,3-epoxy-3-phenylbutyrate-di-ethyl	0-1	Skin Sens. 1; H317 Aquatic Chronic 2; H411
1.104-55-2 **2.203-213-9** **3.Not Available** **4.01-2119935242-45-XXXX**	cinnamaldehyde	0-1	Skin Irrit. 2; H315 Skin Sens. 1; H317 Eye Irrit. 2; H319
1.97-53-0 **2.202-589-1** **3.Not Available** **4.Not Available**	eugenol	0-1	Skin Sens. 1; H317 Eye Irrit. 2; H319
1.112-31-2 **2.203-957-4** **3.Not Available** **4.Not Available**	decanal	0-1	Eye Irrit. 2; H319 Aquatic Chronic 3; H412
1.106-24-1 **2.203-377-1** **3.Not Available** **4. 01-2119552430-49-XXXX**	Geraniol	0-1	Eye Dam.:1 H318 Skin Irrit.:2 H315 Skin Sens.:1B H317
1.23726-93-4 **2.245-844-2** **3.Not Available** **4.Not Available**	(E)-1-(2,6,6-Trimethyl-1,3-cyclohexadien-1-yl)- 2-buten-1-one	0-1	Aquatic Chronic.:2 H411 Skin Irrit.:2 H315 Skin Sens.:1A H317

The full text of the H phrases are displayed in section 16 of the safety data sheet

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

In case of skin contact: Take off contaminated clothing. Take a shower immediately. Call a doctor immediately.

Wash the contaminated garments before reusing them.

In case of eyes contact: Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.

In case of ingestion: Rinse mouth thoroughly with water. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention.

In case of inhalation: Move affected person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention if any discomfort continues.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11

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:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

EXTINGUISHING MEDIA WHICH MUST NOT BE USED FOR SAFETY REASONS:

Do not use jets of water as it may disperse or spread the fire.

5.2 Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products. The product is combustible and, when the powder is released into the air in sufficient concentrations and in the presence of a source of ignition, it can create explosive mixtures with air. Fires may start or get worse by leakage of the solid product from the container, when it reaches high temperatures or through contact with sources of ignition.

Avoid contamination with oxidizing agents (nitrates, oxidizing acids, chlorinated bleaches, chlorine, etc.), as it can cause ignition.

5.3 Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

Avoid contamination with oxidizing agents (nitrates, oxidizing acids, chlorinated bleaches, chlorine, etc.), as it can cause ignition.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

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

Provide adequate ventilation

6.2 Environmental precautions

Avoid the spillage or runoff entering drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3 Methods and material for containment and cleaning up

Absorb spillage with non-combustible, absorbent material. Transfer to covered steel drums for disposal. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

6.4 Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists. Don't use empty container before they have been cleaned. Before making transfer operations, assure that there aren't any incompatible material residuals in the containers. Contamined clothing should be changed before entering eating areas. Do not eat or drink while working. See also section 8 for recommended protective equipment.

7.2 Conditions for safe storage, including any incompatibilities

Store in tightly-closed, original container in a dry, cool and well-ventilated place. Store away from incompatible materials (see Section 10).

7.3 Specific end use(s)

Information not available

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

distillates (petroleum), hydrotreated light

TWA: 5 mg / m3

OCCUPATIONAL EXPOSURE BANDING

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
benzaldehyde	E	≤ 0.1 ppm
coumarin	E	≤ 0.01 mg/m³
undecan-4-olide	E	≤ 0.1 ppm
linalool	E	≤ 0.1 ppm
(E) -4- (2,6,6-trimethyl-1-cyclohexene-1-yl) -3-buten-2-one	E	≤ 0.1 ppm
ethyl-and-2-naphthyl-oxide	E	≤ 0.01 mg/m³
Piperonal	E	≤ 0.01 mg/m³
d-limonene	E	≤ 0.1
2,3-epoxy-3-phenylbutyrate-ethyl	E	≤ 0.1 ppm
cinnamaldehyde	E	≤ 0.1 ppm
eugenol	E	≤ 0.1 ppm
decanal	E	≤ 0.1 ppm

Derived No effect level (DNEL)

benzaldehyde

Dermal 1.14 mg/kg bw/day (Systemic, Chronic)

Inhalation 9.8 mg/m³ (Systemic, Chronic)
Inhalation 9.8 mg/m³ (Local, Chronic)
Dermal 1 % in mixture (weight basis) (Local, Acute)
Dermal 0.67 mg/kg bw/day (Systemic, Chronic) *
Inhalation 4.9 mg/m³ (Systemic, Chronic) *
Oral 0.67 mg/kg bw/day (Systemic, Chronic) *
Inhalation 4.9 mg/m³ (Local, Chronic) *

Benzyl benzoate

Dermal 2.6 mg/kg bw/day (Systemic, Chronic)
Inhalation 5.1 mg/m³ (Systemic, Chronic)
Inhalation 102 mg/m³ (Systemic, Acute)
Dermal 1.3 mg/kg bw/day (Systemic, Chronic) *
Inhalation 1.25 mg/m³ (Systemic, Chronic) *
Oral 0.4 mg/kg bw/day (Systemic, Chronic) *
Inhalation 25 mg/m³ (Systemic, Acute) *
Oral 78 mg/kg bw/day (Systemic, Acute) *

Distillates (petroleum), hydrotreated light

Oral 18.75 mg/kg bw/day (Systemic, Chronic) *

benzyl-acetate

Dermal 2.5 mg/kg bw/day (Systemic, Chronic)
Inhalation 9 mg/m³ (Systemic, Chronic)
Dermal 1.3 mg/kg bw/day (Systemic, Chronic) *
Inhalation 2.2 mg/m³ (Systemic, Chronic) *
Oral 1.3 mg/kg bw/day (Systemic, Chronic) *

Coumarin

Dermal 0.79 mg/kg bw/day (Systemic, Chronic)
Inhalation 6.78 mg/m³ (Systemic, Chronic)
Dermal 0.39 mg/kg bw/day (Systemic, Chronic) *
Inhalation 1.69 mg/m³ (Systemic, Chronic) *
Oral 0.39 mg/kg bw/day (Systemic, Chronic) *

undecan-4-olide

Dermal 5.38 mg/kg bw/day (Systemic, Chronic)
Inhalation 19 mg/m³ (Systemic, Chronic)
Dermal 2.7 mg/kg bw/day (Systemic, Chronic) *
Inhalation 4.68 mg/m³ (Systemic, Chronic) *
Oral 2.7 mg/kg bw/day (Systemic, Chronic) *

linalool

Dermal 2.5 mg/kg bw/day (Systemic, Chronic)
Inhalation 2.8 mg/m³ (Systemic, Chronic)
Dermal 3 mg/cm² (Local, Chronic)
Dermal 5 mg/kg bw/day (Systemic, Acute)
Inhalation 16.5 mg/m³ (Systemic, Acute)
Dermal 3 mg/cm² (Local, Acute)
Dermal 1.25 mg/kg bw/day (Systemic, Chronic) *
Inhalation 0.7 mg/m³ (Systemic, Chronic) *
Oral 0.2 mg/kg bw/day (Systemic, Chronic) *
Dermal 1.5 mg/cm² (Local, Chronic) *
Dermal 2.5 mg/kg bw/day (Systemic, Acute) *
Inhalation 4.1 mg/m³ (Systemic, Acute) *
Oral 1.2 mg/kg bw/day (Systemic, Acute) *
Dermal 1.5 mg/cm² (Local, Acute) *

(E) -4- (2,6,6-trimethyl-1-cyclohexene-1-yl) -3-buten-2-one
Dermal 6 mg/kg bw/day (Systemic, Chronic)
Inhalation 12.7 mg/m³ (Systemic, Chronic)
Dermal 3.6 mg/kg bw/day (Systemic, Chronic) *
Inhalation 3.1 mg/m³ (Systemic, Chronic) *
Oral 1.8 mg/kg bw/day (Systemic, Chronic) *
ethyl-and-2-naphthyl-oxide
Dermal 79.8 µg/kg bw/day (Systemic, Chronic)
Inhalation 0.281 mg/m³ (Systemic, Chronic)
Dermal 28.5 µg/kg bw/day (Systemic, Chronic) *
Inhalation 42.2 µg/m³ (Systemic, Chronic) *
Oral 28.5 µg/kg bw/day (Systemic, Chronic) *
Piperonal
Dermal 2.5 mg/kg bw/day (Systemic, Chronic)
Inhalation 17.6 mg/m³ (Systemic, Chronic)
Dermal 1.25 mg/kg bw/day (Systemic, Chronic) *
Inhalation 4.3 mg/m³ (Systemic, Chronic) *
Oral 1.25 mg/kg bw/day (Systemic, Chronic) *
d-limonene
Dermal 9,5 mg/kg bw/day (Systemic, Chronic)
Inhalation 66,7 mg/m³ (Systemic, Chronic)
Dermal 4,8 mg/kg bw/day (Systemic, Chronic)
Inhalation 16,6 mg/m³ (Sistemico, Cronico) *
Oral 4,8 mg/kg bw/day (Systemic, Chronic)
2,3-epoxy-3-phenylbutyrate-ethyl
Dermal 0.7 mg/kg bw/day (Systemic, Chronic)
Inhalation 2.45 mg/m³ (Systemic, Chronic)
Dermal 0.35 mg/kg bw/day (Systemic, Chronic) *
Inhalation 0.61 mg/m³ (Systemic, Chronic) *
Oral 0.35 mg/kg bw/day (Systemic, Chronic) *
cinnamaldehyde
Dermal 1.17 mg/kg bw/day (Systemic, Chronic)
Inhalation 2.204 mg/m³ (Systemic, Chronic)
Dermal 0.417 mg/kg bw/day (Systemic, Chronic) *
Inhalation 0.543 mg/m³ (Systemic, Chronic) *
Oral 0.417 mg/kg bw/day (Systemic, Chronic) *
eugenol
Dermal 6 mg/kg bw/day (Systemic, Chronic)
Inhalation 21.2 mg/m³ (Systemic, Chronic)
Dermal 3 mg/kg bw/day (Systemic, Chronic) *
Inhalation 5.22 mg/m³ (Systemic, Chronic) *
decanal
Dermal 7.05 mg/kg bw/day (Systemic, Chronic)
Inhalation 24.86 mg/m³ (Systemic, Chronic)
Dermal 17.62 mg/cm² (Local, Chronic)
Inhalation 62.14 mg/m³ (Local, Chronic)
Dermal 14.1 mg/kg bw/day (Systemic, Acute)
Inhalation 49.71 mg/m³ (Systemic, Acute)
Dermal 35.24 mg/cm² (Local, Acute)
Inhalation 124.28 mg/m³ (Local, Acute)
Dermal 3.52 mg/kg bw/day (Systemic, Chronic) *

Inhalation 6.13 mg/m³ (Systemic, Chronic) *
Oral 3.52 mg/kg bw/day (Systemic, Chronic) *
Dermal 8.81 mg/cm² (Local, Chronic) *
Inhalation 15.32 mg/m³ (Local, Chronic) *
Dermal 7.05 mg/kg bw/day (Systemic, Acute) *
Inhalation 12.26 mg/m³ (Systemic, Acute) *
Oral 7.05 mg/kg bw/day (Systemic, Acute) *
Dermal 17.62 mg/cm² (Local, Acute) *
Inhalation 30.65 mg/m³ (Local, Acute) *

* Values for General Population

Predicted No Effect Concentration (PNEC)
Benzaldehyde
0.011 mg/L (Marine water)
0.004 mg/kg sediment dw (Sediment Fresh water)
0.001 mg/kg soil dw (Soil)
7.59 mg/L (STP)
benzyl-acetate
0.018 mg/L (Fresh water)
0.002 mg/L (Water - intermittent release)
0.04 mg/L (Marine water)
0.526 mg/kg sediment dw (Sediment Fresh water)
0.094 mg/kg soil dw (Soil)
8.55 mg/L (STP)
Coumarin
19 µg/L (Fresh water)
1.9 µg/L (Water - intermittent release)
14.2 µg/L (Marine water)
0.15 mg/kg Sediment dw (Sediment (Fresh water))
0.015 mg/kg Sediment dw (Sediment marine)
0.018 mg/kg Soil dw (Soil)
6.4 mg/L (STP)
30.7 mg/kg food (Oral)
undecan-4-olide
84 µg/L (Fresh water)
8.4 µg/L (Water - intermittent release)
58.5 µg/L (Marine water)
5.341 mg/kg sediment dw (Sediment Fresh water)
1.019 mg/kg soil dw (Soil)
80 mg/L (STP)
Linalool
0.2 mg/L (Fresh water)
0.02 mg/L (Water - intermittent release)
2 mg/L (Marine water)
2.22 mg/kg sediment dw (Sediment Fresh water)
0.327 mg/kg soil dw (Soil)
10 mg/L (STP)
(E) -4- (2,6,6-trimethyl-1-cyclohexene-1-yl) -3-buten-2-one
0.004 mg/L (Fresh water)
0 mg/L (Water - intermittent release)

0.04 mg/L (Marine water)
0.151 mg/kg sediment dw (Sediment Fresh water)
0.051 mg/kg soil dw (Soil)
1 mg/L (STP)

ethyl-and-2-naphthyl-oxide

2.31 µg/L (Fresh water)
0.231 µg/L (Water - intermittent release)
23.1 µg/L (Marine water)
0.722 mg/kg sediment dw (Sediment Fresh water)
0.143 mg/kg soil dw (Soil)

Piperonal

2.5 µg/L (Fresh water)
0.25 µg/L (Water - intermittent release)
25 µg/L (Marine water)
11.9 µg/kg sediment dw (Sediment Fresh water)
0.84 µg/kg soil dw (Soil)
10 mg/L (STP)

d-limonene

14 µg/L (Fresh water)
1,4 µg/L (Water - intermittent release)
3,85 mg/kg di sedimento dw (Sediment (Fresh water))
0,385 mg/kg di sedimento dw (Marine sediment)
0,763 mg/kg di Soil dw (Soil)
1,8 mg/L (STP)
133 mg/kg food (Oral)

2,3-epoxy-3-phenylbutyrate-ethyl

0.008 mg/L (Fresh water)
8.4 µg/L (Water - intermittent release)
0.084 mg/L (Marine water)
0.214 mg/kg sediment dw (Sediment Fresh water)
0.038 mg/kg soil dw (Soil)
10 mg/L (STP)

Cinnamaldehyde

1.004 mg/L (Fresh water)
0.1 mg/L (Water - intermittent release)
1.004 mg/L (Marine water)
40.7 µg/kg sediment dw (Sediment Fresh water)
6.26 µg/kg soil dw (Soil)
13.119 mg/L (STP)

Eugenol

1.13 µg/L (Fresh water)
0.113 µg/L (Water - intermittent release)
11.3 µg/L (Marine water)
0.081 mg/kg sediment dw (Sediment Fresh water)
0.015 mg/kg soil dw (Soil)

Decanal

1.17 µg/L (Fresh water)
0.117 µg/L (Water - intermittent release)
11.7 µg/L (Marine water)
0.097 mg/kg sediment dw (Sediment Fresh water)
0.019 mg/kg soil dw (Soil)

3.16 mg/L (STP)

Geraniol

Fresh water 0.0108 mg/L
Marine water 0.00108 mg/L
Water 0.108 mg/L
Fresh water Sediment 0.115 mg/kg sediment dw
Water Sediment marine 0.0115 mg/kg sediment dw
Soil 0.0167 mg/kg soil dw
STP 0.7 mg/L

Engineering controls

Ensure adequate ventilation, especially in closed areas.
Make sure the eye washes and showers are close to the workplace.
Use anti-exposure equipment
Provide an emergency exit.

8.2 Exposure controls

Hand protection	Protect hands with category III work gloves (see standard EN 374). The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability. The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use
Respiratory protection:	If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required. Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited. If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
Eye protection:	Wear airtight protective goggles (see standard EN 166).
Skin protection	Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:	Liquid
Colour:	Red
Odour:	Cherry
Olfactory threshold:	N.A.
pH:	7
Melting/freezing point:	N.A.
Initial boiling point and boiling range:	N.A.

Flash point:	N.A.
Evaporation rate:	N.A.
Flammability (solids and gases):	N.A.
Upper/lower flammability or explosive limits:	N.A.
Vapour pressure:	N.A.
Vapour density:	N.A.
Relative density:	N.A.
Solubility:	Soluble
Partition coefficient (n-octanol/water):	N.A.
Auto ignition temperature:	N.A.
Decomposition temperature:	N.A.
Viscosity:	N.A.
Explosive properties:	N.A.
Oxidizing properties:	N.A.

9.2 Other information

Information not available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Information not available

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of dangerous reactions

None

10.4 Conditions to avoid

Avoid overheating.
Avoid exposure to: light, heat sources, open flames.

10.5 Incompatible materials

Information not available.

10.6 Hazardous decomposition products

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

SECTION 11: TOXICOLOGICAL INFORMATION

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

Toxicological information of the mixture: N.A.
Toxicological information of the main substances found in the mixture:
Benzaldehyde
TOXICITY
Dermal (Rabbit) LD50: >1250 mg/kg
Oral (rat) LD50: =800-1600 mg/kg
IRRITATION
Skin (Rabbit):500 mg/24h-moderate
Benzyl benzoate
TOXICITY
Dermal (rat) LD50: 4000 mg/kg
Oral (rat) LD50: 500 mg/kg

alkanes, -C11-15-iso
TOXICITY
Dermal (rabbit) LD50: >3200 mg/kg
Inhalation (rat) LC50: >5.01 mg/l/4h
Oral (rat) LD50: >10000 mg/kg
benzyl-acetate
TOXICITY
Dermal (rabbit) LD50: >5000 mg/kg
Oral (rat) LD50: 2490 mg/kg
undecan-4-olide
TOXICITY
Dermal (rat) LD50: >2000 mg/kg
Oral (rat) LD50: 18500 mg/kg
IRRITATION
Skin (rabbit): 100 mg/24h-SEVERE
Linalool
TOXICITY
Dermal (rat) LD50: 5610 mg/kg
Oral (rat) LD50: 2790 mg/kg
(E) -4- (2,6,6-trimethyl-1-cyclohexene-1-yl) -3-buten-2-one
TOXICITY
Dermal (rat) LD50: >2000 mg/kg
Oral (rat) LD50: 4590 mg/kg
ethyl-and-2-naphthyl-oxide
TOXICITY
Dermal (rabbit) LD50: >5000 mg/kg
Oral (rat) LD50: 3110 mg/kg
Piperonal
TOXICITY
Dermal (rat) LD50: >5 mg/kg
Oral (rat) LD50: 2700 mg/kg
d-limonene
TOXICITY
Dermal (rabbit) LD50: >5000 mg/kg
Inhalation (rat) LC50: 90,86 mg/l
Oral (rat) LD50: >4800 mg/kg
IRRITATION
Skin (rabbit): 500mg/24h moderato
2,3-epossi-3-fenilbutirrato-di-etile
TOXICITY
Dermal (rat) LD50: >2000 mg/kg
Oral (rat) LD50: 5470 mg/kg
cinnamaldehyde
TOXICITY
Dermal (rat) LD50: >2000 mg/kg
Oral (rat) LD50: 1850 mg/kg
eugenol
TOXICITY
Oral (rat) LD50: 1930 mg/kg
IRRITATION
Skin (rabbit): 100 mg/24h-SEVERE

decanal
TOXICITY
Dermal (rabbit) LD50: 4173.12 mg/kg
Oral (rat) LD50: 3088.44 mg/kg
IRRITATION
Skin (rabbit): 14.4 mg/24h (open)
Geraniol
TOSSICITÀ
Dermal (rabbit) LD50: >5000 mg/kg
Oral (rat) LD50: 2100 mg/kg

Unless otherwise specified, the data required by Regulation (EU) 2015/830 indicated below are to be understood N.A.

(a) acute toxicity;
(b) skin corrosion/irritation;
(c) serious eye damage/irritation;
(d) respiratory or skin sensitisation;
The product is classified as Skin Sens. 1 H317
(e) germ cell mutagenicity;
(f) carcinogenicity;
(g) reproductive toxicity;
(h) STOT-single exposure;
(i) STOT-repeated exposure;
(j) aspiration hazard.

11.2 Information on other hazards
Information not available

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity
Do not release into the environment. The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

Endpoint	Test duration (hr)	Species	Value
Benzaldehyde			
LC50	96	Fish	1.07mgl
EC50	96	Algae	23.065mgl
Distillates (petroleum), hydrotreated light			
LC50	96	Fish	>1-mg/L
EC50	48	Crustaceans	>1-mg/L
EC50	72	Algae	>1-mg/L
NOEL	96	Algae	0.2mg/L
Benzyl benzoate			
LC50	96	Fish	1.9mg/L
EC50	48	Crustaceans	3.09mg/L
alkanes, -C11-15-iso			
EC50	48	Crustaceans	<100mg/L
benzyl-acetate			
LC50	96	Fish	4mgl
EC50	48	Crustaceans	17mgl

EC50	96	Algae	1.645mgl
coumarin			
LC50	96	Fish	1.324mg/L
EC50	48	Crustaceans	8.012mg/L
EC50	96	Algae	1.452mg/L
undecan-4-olide			
LC50	96	Fish	5.5mgl
EC50	48	Crustaceans	4mgl
EC50	96	Algae	0.626mgl
linalool			
LC50	96	Fish	0.578mg/l
EC50	48	Crustaceans	=20mg
EC50	96	Algae	88.3mg/l
NOEC	96	Fish	<3.5mg/L
LC50	96	Fish	15.743mgl
EC50	48	Crustaceans	31mgl
EC50	72	Algae	17mgl
NOEC	72	Algae	2.7mgl
(E) -4- (2,6,6-trimethyl-1-cyclohexene-1-yl) -3-buten-2-one			
LC50	96	Fish	5.09mgl
EC50	48	Crustaceans	=1mgl
EC50	96	Algae	=12.2mgl
NOEC	96	Fish	2.15mgl
ethyl-and-2-naphthyl-oxide			
LC50	96	Fish	1.570mgl
EC50	48	Crustaceans	3.9mgl
EC50	72	Algae	2.31mgl
Piperonal			
LC50	96	Fish	2.5mgl
EC50	48	Crustaceans	52mgl
EC50	72	Algae	6.8mgl
NOEC	72	Algae	<0.38mgl
d-limonene			
LC50	96	Fish	0.46mg/L
EC50	48	Crustaceans	0.307mg/L
2,3-epoxy-3-phenylbutyrate-ethyl			
LC50	96	Fish	4.2mgl
EC50	48	Crustaceans	52mgl
EC50	96	Algae	0.752mgl
NOEC	96	Fish	3.2mgl
cinnamaldehyde			
LC50	96	Fish	>3.5mgl
EC50	48	Crustaceans	3.21mgl
EC50	72	Algae	6.87mgl
eugenol			
LC50	96	Fish	8.565mgl
EC50	48	Crustaceans	1.05mgl
EC50	96	Algae	18.422mgl
NOEC	24	Fish	10mgl
decanal			
LC50	96	Fish	1.45mgl

EC50	48	Crustaceans	1.17mgl
EC50	72	Algae	1.79mgl
NOEC	48	Crustaceans	0.588mgl
Geraniol			
LC50	96	Fish	2.6mg/L
EC50	48	Crustaceans	10.8mg/L

12.2 Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
benzaldehyde	LOW	LOW
Benzyl benzoate	HIGH	HIGH
benzyl-acetate	LOW	LOW
coumarin	LOW	LOW
undecan-4-olide	LOW	LOW
linalool	HIGH	HIGH
Piperonal	LOW	LOW
d-limonene	HIGH	HIGH
2,3-epoxy-3-phenylbutyrate-ethyl	HIGH	HIGH
cinnamaldehyde	LOW	LOW
eugenol	HIGH	HIGH
decanal	LOW	LOW
Geraniol	LOW	LOW

12.3 Bioaccumulative potential

Ingredient	Bioaccumulation
benzaldehyde	LOW (LogKOW = 1.48)
Distillates (petroleum), hydrotreated light	LOW (BCF = 159)
Benzyl benzoate	MEDIUM (LogKOW = 3.97)
alkanes, -C11-15-iso	HIGH (BCF = 100000)
benzyl-acetate	LOW (LogKOW = 1.96)
coumarin	LOW (LogKOW = 1.39)
undecan-4-olide	LOW (LogKOW = 3.0583)
linalool	LOW (LogKOW = 2.97)
ethyl-and-2-naphthyl-oxide	LOW (LogKOW = 3.741)
Piperonal	LOW (LogKOW = 1.05)
d-limonene	HIGH (LogKOW = 4.8275)
2,3-epoxy-3-phenylbutyrate-ethyl	LOW (LogKOW = 3.0006)
cinnamaldehyde	LOW (BCF = 10)
eugenol	LOW (LogKOW = 2.27)
decanal	LOW (LogKOW = 3.7629)
Geraniol	LOW (LogKOW = 3.47)

12.4 Mobility in soil

Ingredient	Mobility
benzaldehyde	LOW (KOC = 32.67)
Benzyl benzoate	LOW (KOC = 3119)
benzyl-acetate	LOW (KOC = 133.7)
coumarin	LOW (KOC = 146.1)
undecan-4-olide	LOW (KOC = 476.5)
linalool	LOW (KOC = 56.32)
ethyl-and-2-naphthyl-oxide	LOW (KOC = 2412)

Piperonal	LOW (KOC = 10.18)
d-limonene	LOW (KOC = 1324)
2,3-epoxy-3-phenylbutyrate-ethyl	LOW (KOC = 73.94)
cinnamaldehyde	LOW (KOC = 102.4)
eugenol	LOW (KOC = 1124)
decanal	LOW (KOC = 200.6)
Geraniol	LOW (KOC = 70.79)

12.5 Results of PBT and vPvB evaluation

vPvB Substances: None - PBT Substances: None

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

No data available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

General information When handling waste, the safety precautions applying to handling of the product should be considered.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: INFORMATION ON TRANSPORT

14.1 UN number or ID number

N.A.

14.2 UN proper shipping name.

N.A.

14.3 Transport hazard class(es).

N.A.

14.4 Packing group.

N.A.

14.5 Environmental hazards.

N.A.

14.6 Special precautions for user.

N.A.

14.7 Maritime transport in bulk according to IMO instruments.

N.A.

SECTION 15: REGULATORY INFORMATION

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

Seveso category

None.

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.
None.

Substances in Candidate List (Art. 59 REACH)
None.

Substances subject to authorisarion (Annex XIV REACH).
None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

15.2 Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16: OTHER INFORMATION

Full text of H phrases referred to in Section 2 and 3:

H226 Flammable liquid and vapour
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.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation
H336 May cause drowsiness or dizziness
H372 Causes damage to organs.
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.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%

- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

Regulation (EC) 1907/2006 of the European Parliament (REACH)
Regulation (EC) 1272/2008 of the European Parliament (CLP)
Regulation (EU) 2020/878 (Annex II REACH Regulation)
Regulation (EC) 790/2009 of the European Parliament (I Atp. CLP)
Regulation (EU) 286/2011 of the European Parliament (II Atp. CLP)
Regulation (EU) 618/2012 of the European Parliament (III Atp. CLP)
Regulation (EU) 487/2013 of the European Parliament (IV Atp. CLP)
Regulation (EU) 944/2013 of the European Parliament (V Atp. CLP)
Regulation (EU) 605/2014 of the European Parliament (VI Atp. CLP)
Regulation (EU) 2015/1221 of the European Parliament (VII Atp. CLP)
Regulation (EU) 2016/918 of the European Parliament (VIII Atp. CLP)
Regulation (EU) 2016/1179 (IX Atp. CLP)
Regulation (EU) 2017/776 (X Atp. CLP)
Regulation (EU) 2018/669 (XI Atp. CLP)
Regulation (EU) 2019/521 (XII Atp. CLP)
Delegated Regulation (EU) 2018/1480 (XIII Atp. CLP)
Regulation (EU) 2019/1148
Delegated regulation (EU) 2020/217 (XIV Atp. CLP)
Delegated regulation (EU) 2020/1182 (XV Atp. CLP)
Delegated regulation (EU) 2021/643 (XVI Atp. CLP)
Delegated regulation (EU) 2021/849 (XVII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Differences from the other versions:
01/02/03/04/05/06/0/08/09/10/11/12/13/14/15/16