

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: MERLIN PN794372

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: MERLIN PN794372 (Contains:4-tert.-Butylcyclohexyl acetate, Geraniol, Hexyl Cinnamal, Linalool)

Other identifiers: None

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

Product uses: Fragrance

1.3 Details of the supplier of the safety data sheet

Company name: AROMATIC FLAVOURS & FRAGRANCES EUROPE

Company address: AFF HOUSE
STATION ROAD INDUSTRIAL ESTATE
ELMSWELL, BURY ST. EDMUNDS
SUFFOLK IP30 9HR
UNITED KINGDOM

Contact: Zuzanna Przywara

E-Mail address: zprzywara@af-f.com

Company phone: 01359 242459

1.4 Emergency telephone number

Emergency phone: 01359 242459

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Classification under Regulation (EC) No 1272/2008

Class and category of danger: Skin Corrosion / Irritation Category 2
Eye Damage / Irritation Category 2
Sensitization - Skin Category 1
Hazardous to the Aquatic Environment - Long-term Hazard Category 2
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H319, Causes serious eye irritation.
H411, Toxic to aquatic life with long lasting effects.

Classification under Directive 1999/45/EC

Hazard symbols: Xi, Irritant.
N, Dangerous for the environment.

Risk phrases: R38, Irritating to the skin.
R43, May cause sensitisation by skin contact.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: MERLIN PN794372

Version: 1

R51/53, Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements

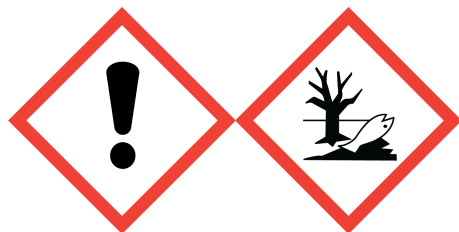
Signal word: Warning

Hazard statements: H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H319, Causes serious eye irritation.
H411, Toxic to aquatic life with long lasting effects.

Supplemental Information: EUH208, Contains alpha-isomethyl ionone, (E)-anethole, Coumarin, Eugenol, Isoeugenol, Citronellol, (E)-1-(2,6,6-Trimethyl-2-cyclohexen-1-yl)-2-buten-1-one, Estragole, Benzyl salicylate. May produce an allergic reaction.

Precautionary statements: P261, Avoid breathing vapour or dust.
P264, Wash hands and other contacted skin thoroughly after handling.
P272, Contaminated work clothing should not be allowed out of the workplace.
P273, Avoid release to the environment.
P280, Wear protective gloves/eye protection/face protection.
P302/352, IF ON SKIN: Wash with plenty of soap and water.
P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333/313, If skin irritation or rash occurs: Get medical advice/attention.
P337/313, If eye irritation persists: Get medical advice/attention.
P362, Take off contaminated clothing and wash before reuse.
P391, Collect spillage.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



Other hazards: None

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: MERLIN PN794372

Version: 1

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Name	CAS	EC	REACH Registration No.	%	Classification for (DSD) 67/548/EEC	Classification for (CLP) 1272/2008
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SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: MERLIN PN794372

Version: 1

Hexyl Cinnamal	101-86-0	202-983-3		7.50%	Xi ; R38-R43	SS 1B-EH C2;H317-H411,-
4-tert.-Butylcyclohexyl acetate	32210-23-4	250-954-9	01-2119976286-24 / -	7.50%	Xi-N ; R43-R51/53	SS 1B-EH C2;H317-H411,-
Linalool	78-70-6	201-134-4		7.02%	Xi ; R38	SCI 2-EDI 2;H315-H319,-
Citronellol	106-22-9	203-375-0		5.70%	Xi-N ; R38-R43-R51/53	SCI 2-EDI 2-SS 1B;H315-H317-H319,-
Benzyl salicylate	118-58-1	204-262-9		5.02%	Xi-N ; R43-R51/53	SS 1B-EH C3;H317-H320-H412,-
Amyl salicylate	2050-08-0	911-280-7		2.71%	Xn-N ; R22-R50/53	ATO 4-EH A1-EH C1; H302-H410,-
Phenyl Ethyl Alcohol	60-12-8	200-456-2	01-2119963921-31 / -	2.50%	Xn ; R22-R36	ATO 4-EDI 2;H302-H319,-
3a-4,5,6,7,7a-hexahydro-7,7-methano-1(3)H-inden-5(6)-yl acetate	5413-60-5	226-501-6		2.30%	- ; R52/53	EH C3;H412,-
alpha-isomethyl ionone	127-51-5	204-846-3		2.00%	Xi-N ; R43-R36/38-R51/53	SCI 2-SS 1-SS 1B-EH C2; H315-H317-H319-H320-H411,-
Eugenol	97-53-0	202-589-1		1.30%	Xi ; R36-R43	EDI 2-SS 1B;H317-H319,-
Diphenyl ether	101-84-8	202-981-2		1.00%	Xi-N ; R36-R51/53	EH C2;H320-H411,-
3,5,5-Trimethyl Hexyl Acetate	58430-94-7	261-245-9		1.00%	Xi-N ; R38-R51/53	SCI 2-EH C2;H315-H411,-
Trichloromethyl phenyl carbonyl acetate	90-17-5	201-972-0		1.00%	- ; R52/53	SCI 2-EH C3;H315-H412,-
Hexamethylindanopyran	1222-05-5	214-946-9		0.90%	N ; R50/53	EH A1-EH C1;H410,-
p-Methylanisole	104-93-8	203-253-7		0.61%	Xn ; R10-R22-R38-R63-R52/53	FL 3-ATO 4-SCI 2-REP 2-EH C3;H226-H302-H315-H361-H412,-
4-tert-ButylCycloHexanol	98-52-2	202-676-4		0.60%	N ; R51/53	EDI 2;H319,-
(E)-anethole	4180-23-8	224-052-0	01-2119979097-22-	0.35%	Xi-N ; R43-R51/53	SS 1B;H317,-
Undecanal	112-44-7	203-972-6		0.30%	Xi-N ; R38-R51/53	SCI 2;H315,-
Estragole	140-67-0	205-427-8		0.20%	Xn ; R22-R40-R43-R68	ATO 4-SS 1B-MUT 2-CAR 2;H302-H317-H341-H351,-
Coumarin	91-64-5	202-086-7		0.20%	Xn ; R22-R43	ATO 4-SS 1B-STO-RE 2; H302-H317-H373,-
Geraniol	106-24-1	203-377-1		0.10%	Xi ; R38-R41-R43	SCI 2-EDI 1-SS 1;H315-H317-H318,-
(E)-1-(2,6,6-Trimethyl-2-cyclohexen-1-yl)-2-buten-1-one	24720-09-0	246-430-4		0.10%	Xn ; R22-R43	ATO 4-SS 1B;H302-H317,-
Z-3-Hexenyl Salicylate	65405-77-8	265-745-8		0.10%	N ; R50/53	EH A1-EH C1;H410,-
Isoeugenol	97-54-1	202-590-7		0.01%	Xn ; R43-R21/22-R36/38	ATO 4-ATD 4-SCI 2-EDI 2-SS 1A;H302-H312-H315-H317-H319,-
beta-Caryophyllene	87-44-5	201-746-1		0.009%	Xn ; R65	AH 1;H304,-
l.beta.-Bisabolene	495-61-4			0.002%	Xn ; R38-R43-R65	SCI 2-SS 1B-AH 1;H304-H315-H317,-
dl-Limonene (racemic)	138-86-3	205-341-0		<0.001%	Xn-N ; R10-R38-R43-R65-R50/53	FL 3-SCI 2-SS 1-SS 1B-AH 1-EH A1-EH C1;H226-H304-H315-H317-H410,-
p-Cymene	99-87-6	202-796-7		<0.001%	Xn-N ; R10-R65-R51/53	FL 3-AH 1-EH C2;H226-H304-H411,-
Terpinolene	586-62-9	209-578-0		<0.001%	Xn-N ; R43-R65-R50/53	SS 1B-AH 1-EH A1-EH C1; H304-H317-H410,-

Substances with Community workplace exposure limits, not listed above:

Name	CAS	EC	%
Diphenyl ether	101-84-8	202-981-2	1.00%

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: MERLIN PN794372

Version: 1

Substances that are persistent, bioaccumulative and toxic or very persistent and very bioaccumulative, greater than 0.1%:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

IF ON SKIN: Wash with plenty of soap and water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

4.2 Most important symptoms and effects, both acute and delayed

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: MERLIN PN794372

Version: 1

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits:

Ingredient	CAS	EC	Description			Reference
Diphenyl ether	101-84-8	202-981-2	Long-term exposure limit (8-hour TWA reference period)	1	7.1	UK EH40 Oct 2007
			Short-term exposure limit (15-minute reference period)	-	-	UK EH40 Oct 2007

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Ensure adequate and ongoing ventilation is maintained in order to prevent build up of excessive vapour and to ensure occupational exposure limits are adhered to. If appropriate, and depending on your patterns and volumes of use, the following engineering controls may be required as additional protective measures: a) Isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant. b) Employ the use of Personal protective equipment - an approved, properly fitted respirator with organic vapour cartridges or canisters and particulate filters. c) Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures. d) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: MERLIN PN794372

Version: 1

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Colourless To Very Pale Yellow

Odour: Not determined

pH: Not determined

Initial boiling point / range: Not determined

Flash point: > 61 °C

Vapour pressure: Not determined

Relative density: 0.9840 - 1.0040

Solubility(ies): Not determined

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in Regulation (EC) No 1272/2008 (CLP).

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye irritation.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: MERLIN PN794372

Version: 1

Assumed Toxicity Value (LD50 or ATE) for Acute Oral Toxicity: >5000
Assumed Toxicity Value (LD50 or ATE) for Acute Dermal Toxicity: >5000
Assumed Toxicity Value (LC50 or ATE) for Acute Inhalation Toxicity: Not Available
Inhalation Route: Not Available

Information about hazardous ingredients in the mixture

Ingredient	CAS	EC	LD50/ATE Oral	LD50/ATE Dermal	LC50/ATE Inhalation	LC50 Route
Amyl salicylate	2050-08-0	911-280-7	2000	Not available	Not available	Not available
Phenyl Ethyl Alcohol	60-12-8	200-456-2	1610	2500	Not available	Not available

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:

Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

14.1 UN number: UN3082

14.2 UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Amyl salicylate, Hexamethylindanopyran)

14.3 Transport hazard class(es): 9

Sub Risk: -

14.4. Packing Group: III

14.5 Environmental hazards: This is an environmentally hazardous substance.

14.6 Special precautions for user: None additional

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: MERLIN PN794372

Version: 1

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not applicable

Section 15. Regulatory information

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

None additional

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Concentration % Limits: EH C2=44.54% EH C3=4.39% EH C4=0.87987648% SCI 2=59.82% EDI 2=51.20% EDI 2A=39.14% SS 1=13.33%

Total Fractional Values: EH C2=2.25 EH C3=22.79 EH C4=113.65 SCI 2=1.67 EDI 2=1.95 EDI 2A=2.55 SS 1=7.50

Key to revisions:

Not applicable

Key to abbreviations:

Abbreviation	Meaning
AH 1	Aspiration Hazard Category 1
ATD 4	Acute Toxicity - Dermal Category 4
ATO 4	Acute Toxicity - Oral Category 4
CAR 2	Carcinogenicity Category 2
EDI 1	Eye Damage / Irritation Category 1
EDI 2	Eye Damage / Irritation Category 2
EH A1	Hazardous to the Aquatic Environment - Acute Hazard Category 1
EH C1	Hazardous to the Aquatic Environment - Long-term Hazard Category 1
EH C2	Hazardous to the Aquatic Environment - Long-term Hazard Category 2
EH C3	Hazardous to the Aquatic Environment - Long-term Hazard Category 3
FL 3	Flammable Liquid, Hazard Category 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.
H320	Causes eye irritation.
H341	Suspected of causing genetic defects (exposure route).

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: MERLIN PN794372

Version: 1

H351	Suspected of causing cancer (exposure route).
H361	Suspected of damaging fertility or the unborn child (exposure route).
H373	May cause damage to organs (organs) through prolonged or repeated exposure (exposure route).
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.
MUT 2	Germ Cell Mutagenicity Category 2
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe vapour or dust.
P261	Avoid breathing vapour or dust.
P264	Wash hands and other contacted skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection/face protection.
P301/310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301/312	IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.
P302/352	IF ON SKIN: Wash with plenty of soap and water.
P303/361/353	IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308/313	IF exposed or concerned: Get medical advice/attention.
P310	Immediately call a POISON CENTER or doctor/physician.
P312	Call a POISON CENTRE or doctor/physician if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P330	Rinse mouth.
P331	Do not induce vomiting.
P332/313	If skin irritation occurs: Get medical advice/attention.
P333/313	If skin irritation or rash occurs: Get medical advice/attention.
P337/313	If eye irritation persists: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
P363	Wash contaminated clothing before reuse.
P370/378	In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P391	Collect spillage.
P403/235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: MERLIN PN794372

Version: 1

REP 2	Toxic to Reproduction Category 2
SCI 2	Skin Corrosion / Irritation Category 2
SS 1	Sensitization - Skin Category 1
SS 1A	Sensitization - Skin Category 1A
SS 1B	Sensitization - Skin Category 1B
STO-RE 2	Specific Target Organ Toxicity (Repeated Exposure) Category 2

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.