



# OIL, PEONY PF\*

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Issue date: 06/28/2021

Version: 1.0

### SECTION 1: Identification

#### 1.1. Product identifier

Product form : Mixture  
Product name : OIL, PEONY PF\*  
CAS-No. : N/A  
Product code : 92-9015-99  
Product group : Trade product

#### 1.2. Recommended use and restrictions on use

No additional information available

#### 1.3. Supplier

The Lebermuth Company  
4004 Technology Drive  
46628 South Bend, IN - United States  
T 574-259-7000 - F 574-258-7450  
[info@lebermuth.com](mailto:info@lebermuth.com) - [www.lebermuth.com](http://www.lebermuth.com)

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC - USA: 800-424-9300 International: +1 703-527-3887 / 1-800-424-9300  
CCN 13010

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

##### Classification (GHS CA)

Serious eye damage/eye irritation Category 2A H319 Causes serious eye irritation  
Skin sensitization, Category 1 H317 May cause an allergic skin reaction  
Reproductive toxicity Category 2 H361 Suspected of damaging fertility or the unborn child

Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

##### GHS CA labeling

Hazard pictograms (GHS CA) :



Signal word (GHS CA) : Warning

Hazard statements (GHS CA) : H317 - May cause an allergic skin reaction  
H319 - Causes serious eye irritation  
H361 - Suspected of damaging fertility or the unborn child

Precautionary statements (GHS CA) : 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/vapors/spray.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P272 - Contaminated work clothing should not be allowed out of the workplace.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P302+P352 - IF ON SKIN: Wash with plenty of water.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308+P313 - IF exposed or concerned: Get medical advice/attention.  
P321 - Specific treatment (see supplemental first aid instruction on this label).  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P337+P313 - If eye irritation persists: Get medical advice/attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
P405 - Store locked up.  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity (GHS CA)

No data available

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### SECTION 3: Composition/Information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
DIIOCTYL ADIPATE	adipic acid bis(2-ethylhexyl)ester / adipic acid di(2-ethylhexyl)ester / adipol 2EH / BEHA (=bis(2-ethylhexyl)adipate) / bis(2-ethylhexyl) adipate / bis(2-ethylhexyl)adipate, selectophore / bis(2-ethylhexyl)hexanedioate / bisoflex DOA / DEHA (=bis(2-ethylhexyl)adipate) / di(2-ethylhexyl)adipate / diisooctyladipate (=bis(2-ethylhexyl) adipate) / DOA (=bis(2-ethylhexyl)adipate) / effemoll DOA / effemoll DOA / ergoplast addo / flexol a26 / flexol plasticizer 10.a / flexol plasticizer a26 / good-rite plasticizer GP233 / harflex 250 / hexanedioic acid di(2-ethylhexyl)ester / hexanedioic acid dioctyl ester / hexanedioic acid, bis(2-ethylhexyl) ester / hexanedioic bis(2-ethylhexyl ester) / kemester 5652 / kodaflex doa / mollan s / monoplex doa / morflex 310 / octyl adipate (=bis(2-ethylhexyl)adipate) / PALATINOL DOA / PX238 / reomol DOA (=bis(2-ethylhexyl)adipate) / rucoflex plasticizer DOA / sicol 250 / staflex DOA / truflex DOA / uniflex DOA / vestinol OA / wickenol 158 / witamol 320	(CAS-No.) 103-23-1	≥ 50	Not classified
PHENYLETHYL ALCOHOL	2-hydroxyethylbenzene / 2-phenethanol / 2-phenethyl alcohol / 2-phenyl-1-ethanol / 2-phenylethanol / 2-phenylethyl alcohol / benzeneethanol / benzyl carbinol / benzylmethanol / beta-hydroxyethylbenzene / beta-PEA / beta-phenethanol / beta-phenethylalcohol / beta-phenylethanol / beta-phenylethyl alcohol / ethanol, 2-phenyl- / FEMA No 2858 / methanol, benzyl- / orange oil / PEA (=2-phenylethanol) / phenethanol / phenethyl alcohol / phenylethanol / phenylethyl alcohol / rose oil	(CAS-No.) 60-12-8	10 – 25	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319
BENZYL ACETATE	acetic acid benzyl ester / acetic acid phenylmethyl ester / acetic acid, phenylmethyl ester / acetoxymethylbenzene / alpha-acetoxytoluene / benteine / benzyl acetate / benzyl ethanoate / FEMA No 2135 / phenylmethyl acetate	(CAS-No.) 140-11-4	1 – 5	Not classified
HYDROXYCITRONELLAL	1-octanal, 3,7-dimethyl-7-hydroxy- / 3,7-dimethyl-7-hydroxyoctanal / 7-hydroxy-3,7-dimethyl octanal / 7-hydroxy-3,7-dimethyloctan-1-al / citronellal hydrate / citronellal, hydroxy- / cycialia / cyclosia / FEMA No 2583 / fixol / hydroxycitronellal / lilyl aldehyde / muguet synthetic / muguetine principle / octanal, 7-hydroxy-3,7-dimethyl- / phixia	(CAS-No.) 107-75-5	1 – 5	Eye Irrit. 2A, H319 Skin Sens. 1B, H317

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Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
GERANIOL	(E)-3,7-dimethyl-2,6-octadien-1-ol / (E)-geraniol / (E)-nerol / 2,6-dimethyl-2,6-octadien-8-ol / 2,6-dimethyl-trans-2,6-octadien-8-ol / 2,6-octadien-1-ol, 3,7-dimethyl-, (E)- / 2,6-octadien-1-ol, 3,7-dimethyl-, trans- / 2-trans-3,7-dimethyl-2,6-octadien-1-ol / 3,7-dimethyl-2,6-octadien-1-ol,(E)- / 3,7-dimethyl-2,6-octadien-1-ol,trans- / 3,7-dimethyl-trans-2,6-octadien-1-ol / beta-geraniol / geraniol alcohol / geraniol extra / geranyl alcohol / guaniol / lemonol / Substances with a flash-point above 60 °C and not more than 100 °C / Substances with a flash-point above 60 °C and not more than 100 °C, which do not belong to another class / trans-2,6-octadien-1-ol, 3,7-dimethyl- / trans-3,7-dimethyl-2,6-octadien-1-ol / trans-geraniol	(CAS-No.) 106-24-1	1 – 5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317
PIPERONAL	1,3-benzodioxole-5-carboxaldehyde / 3,4-(methylenedioxy)benzaldehyde / 3,4-benzodioxole-5-carboxaldehyde / 3,4-dihydroxybenzaldehydemethyleneket al / 3,4-dimethylenedioxybenzaldehyde / 3,4-methylene-dihydroxybenzaldehyde / 3,4-methylenedioxybenzaldehyde / 5-formyl-1,3-benzodioxole / benzaldehyde, 3,4-(methylenedioxy)- / dioxymethylene-protocatechuic aldehyde / FEMA No 2911 / geliotropin / heliotropin / piperonal / piperonaldehyde / piperonyl aldehyde / protocatechuic aldehyde methylene ether	(CAS-No.) 120-57-0	1 – 5	Skin Sens. 1B, H317
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta-γ-2-benzopyran		(CAS-No.) 1222-05-5	1 – 5	Flam. Liq. 4, H227
METHYL DIHYDROAJASMONATE	cyclopentaneacetic acid, 3-oxo-2-pentyl-, methyl ester / methyl (2-pentyl-3-oxocyclopentyl)acetate / methyl 3-oxo-2-pentylcyclopentaneacetate / methyl dihydrojasmonate	(CAS-No.) 24851-98-7	1 – 5	Not classified
2-Isobutyl-4-methyltetrahydro-2H-pyran-4-ol		(CAS-No.) 63500-71-0	1 – 5	Eye Irrit. 2A, H319
ORANGE OIL		(CAS-No.) 8028-48-6	0.1 – 1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304
METHYL ANTHRANILATE		(CAS-No.) 134-20-3	0.1 – 1	Eye Irrit. 2A, H319

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Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
GERANYL ACETATE	2,6-dimethyl-2,6-octadien-8-yl ethanoate, trans- / 2,6-dimethyl-2,6-octadiene-8-yl acetate, trans / 2,6-Octadien-1-ol, 3,7-dimethyl-, acetate, (E)- / 2,6-octadien-1-ol, 3,7-dimethyl-, acetate, trans- / 3,7-dimethyl-2,6-octadien-1-ol, acetate, trans- / 3,7-dimethyl-2,6-octadien-1-yl acetate, trans / 3,7-dimethyl-2,6-octadienyl acetate, trans- / 3,7-dimethyl-2-trans, 6-octadienyl acetate / 3,7-dimethylocta-2,6-dien-1-yl-acetate, trans / 3,7-dimethyl-trans-2,6-octadien-1-yl-acetate, mixture of isomers / acetic acid, geraniol ester, trans / bay pine (oyster) oil, trans / beta-geranyl acetate / FEMA number 2509 / geraniol acetate, trans / geranyl acetate / geranyl acetate, trans- / geranyl ethanoate, trans / trans-, geranyl ethanoate / trans-2,6-dimethyl-2,6-octadien-8-yl ethanoate / trans-3,7-dimethyl-2,6-octadien-1-ol, acetate / trans-3,7-dimethyl-2,6-octadien-1-yl acetate / trans-3,7-dimethyl-2,6-octadienyl acetate / trans-3,7-dimethylocta-2,6-dien-1-yl-acetate	(CAS-No.) 105-87-3	0.1 – 1	Skin Irrit. 2, H315 Skin Sens. 1B, H317
ETHYL VANILLIN		(CAS-No.) 121-32-4	0.1 – 1	Eye Irrit. 2B, H320
CITRONELLOL	(+/-)-3,7-dimethyl-6-octen-1-ol / (+/-)-3,7-dimethyloct-6-en-1-ol / (+/-)-beta-citronellol / (+/-)-citronellol / 2,3-dihydrogeraniol / 2,6-dimethyl-2-octen-8-ol / 3,7-dimethyl-6-octen-1-ol / 3,7-dimethyl-octen-6-ol-1 / 6-octen-1-ol, 3,7-dimethyl- / 6-octen-1-ol, 3,7-dimethyl-, (+/-)- / beta-citronellol / cephrol / citronellol / citronellol 950 / citronellol, DL- / dihydrogeraniol / DL-citronellol / FEMA No 2309 / FEMA No 2980 / rodinol	(CAS-No.) 106-22-9	0.1 – 1	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1B, H317
PHENYLETHYL ACETATE		(CAS-No.) 103-45-7	0.1 – 1	Eye Dam. 1, H318
Trichloromethyl phenyl carbonyl acetate	(+/-)-alpha-(trichloromethyl)benzyl acetate / 2,2,2-trichloro-1-phenylethyl acetate / acetic acid, alpha-(trichloromethyl)benzyl ester / alpha-(trichloromethyl)benzenemethanol acetate / alpha-(trichloromethyl)benzyl acetate / alpha-(trichloromethyl)benzyl alcohol acetate / benzenemethanol, alpha-(trichloromethyl)-, acetate / benzyl alcohol, alpha-(trichloromethyl)-, acetate / rosacetol / rosaline / rose crystals / trichloromethylphenylcarbonyl acetate	(CAS-No.) 90-17-5	0.1 – 1	Skin Irrit. 2, H315
NEROL	(Z)-3,7-dimethylocta-2,6-dien-1-ol / (Z)-geraniol / 2,6-octadien-1-ol, 3,7-dimethyl-, (Z)- / 2-cis-3,7-dimethyl-2,6-octadien-1-ol / 3,7-dimethyl-2,6-octadien-1-ol, cis- / beta-nerol / cis-3,7-dimethyl-2,6-octadien-1-ol / cis-geraniol / geraniol, (Z)- / geraniol, cis- / nerol / neryl alcohol	(CAS-No.) 106-25-2	0.1 – 1	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1B, H317
3,7-Dimethyl-1-octanol		(CAS-No.) 106-21-8	0.1 – 1	Skin Irrit. 2, H315 Eye Irrit. 2A, H319
Oxacycloheptadec-10-ene-2-one		(CAS-No.) 28645-51-4	0.1 – 1	Not classified
ROSE ABSOLUTE		(CAS-No.) 8007-01-0	0.1 – 1	Flam. Liq. 4, H227 Eye Dam. 1, H318 Skin Sens. 1, H317
CINNAMIC ALCOHOL	2-propen-1-ol, 3-phenyl- / 3-phenyl-2-propen-1-ol / 3-phenyl-2-propene-1-ol / 3-phenyl-2-propenol / 3-phenylallyl alcohol / 3-phenylprop-2-en-1-ol / cinnamyl alcohol / FEMA No 2294 / gamma-phenylallyl alcohol / styrene / styryl alcohol / styryl carbinol	(CAS-No.) 104-54-1	0.1 – 1	Acute Tox. 4 (Oral), H302 Skin Sens. 1B, H317
Propyl phenethyl acetal	Propyl phenethyl acetal	(CAS-No.) 7493-57-4	0.1 – 1	Not classified

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LINALYL ACETATE	1,5-dimethyl-1-vinyl-4-hexenyl acetate / 1,6-octadien-3-ol, 3,7-dimethyl-, acetate / 3,7-dimethyl-1,6-octadien-3-ol acetate / 3,7-dimethyl-1,6-octadien-3-yl acetate / acetic acid linalool ester / bergamiol / bergamol / bergamot mint oil / ex bois de rose (synthetic) / FEMA No. 2636 / licareol acetate / linalol acetate / linalool acetate / linalyl acetate / linalyl acetate synthetic	(CAS-No.) 115-95-7	0.1 – 1	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2B, H320 Skin Sens. 1B, H317
PHENYLETHYL SALICYLATE		(CAS-No.) 87-22-9	0.1 – 1	Skin Sens. 1B, H317
$\alpha$ -Methylbenzyl alcohol		(CAS-No.) 98-85-1	0.1 – 1	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319
GUAIACWOOD OIL		(CAS-No.) 8016-23-7	0.1 – 1	Skin Irrit. 2, H315 Skin Sens. 1B, H317
DELTA DAMASCONE		(CAS-No.) 57378-68-4	0.1 – 1	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Skin Sens. 1A, H317
LEMON OIL TERPENES		(CAS-No.) 68917-33-9	0.1 – 1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Repr. 2, H361 Asp. Tox. 1, H304
Phenylacetic acid		(CAS-No.) 103-82-2	< 0.1	Eye Irrit. 2A, H319
DAMASCENIA 185		(CAS-No.) N/A	< 0.1	Flam. Liq. 4, H227
DIHYDROFARNESOL		(CAS-No.) 51411-24-6	> 0.088875	Not classified
LINALOOL	(+/-)-linalool / 1,6-octadien-3-ol, 3,7-dimethyl- / 2,6-dimethyl-2,7-octadiene-6-ol / 2,6-dimethylocta-2,7-dien-6-ol / 3,7-dimethyl-1,6-octadien-3-ol / 3,7-dimethyl-3-hydroxy-1,6-octadiene,dl- / 3,7-dimethylocta-1,6-dien-3-ol / allo-cimemenol / beta-linalool / coriandrol / dl-3,7-dimethyl-3-hydroxy-1,6-octadiene / linalool / linalyl alcohol / Substances with a flash-point above 60 °C and not more than 100 °C / Substances with a flash-point above 60 °C and not more than 100 °C, which do not belong to another class	(CAS-No.) 78-70-6	< 0.1	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1B, H317
PETITGRAIN OIL		(CAS-No.) 8014-17-3	< 0.1	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Skin Sens. 1, H317 Repr. 2, H361 Asp. Tox. 1, H304
TERPINYL ACETATE	(+/-)-2-(4-methyl-3-cyclohexenyl)isopropyl acetate / (+/-)-alpha-terpinyl acetate / 3-cyclohexene-1-methanol, alpha, alpha, 4-trimethyl-, acetate / alpha-terpineol, acetate / alpha-terpinyl, acetate / para-menth-1-en-8-ol, acetate / p-menth-1-en-8-ol, acetate / p-menth-1-en-8-yl acetate	(CAS-No.) 80-26-2	< 0.1	Not classified
2,3-DIHYDRO-2,5-DIMETHYL-1-H-INDENE-2-METHANOL	1H-Indene-2-methanol, 2,3-dihydro-2,5-dimethyl-	(CAS-No.) 285977-85-7	< 0.1	Not classified
BETA PINENE	2(10)-pinene / 6,6-dimethyl-2-methylenebicyclo(3.1.1)heptane / beta-pinene / beta-pinene(FCC) / bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene- / FEMA No 2903 / nopinen / nopinene / PC 600 / pin-2(10)-ene / pseudopinene / pseudo-pinene / pseudopinene / pseudo-pinene / terebenthene(=beta-pinene)	(CAS-No.) 127-91-3	0.014 – 0.021	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304
NONANAL		(CAS-No.) 124-19-6	< 0.1	Flam. Liq. 4, H227
GERANIUM OIL		(CAS-No.) 8000-46-2	< 0.1	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1B, H317
MIMOSA ABSOLUTE		(CAS-No.) 8031-03-6	< 0.1	Not classified

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CITRONELLOL	(+/-)-3,7-dimethyl-6-octen-1-ol / (+/-)-3,7-dimethyloct-6-en-1-ol / (+/-)-beta-citronellol / (+/-)-citronellol / 2,3-dihydrogeraniol / 2,6-dimethyl-2-octen-8-ol / 3,7-dimethyl-6-octen-1-ol / 3,7-dimethyl-octen-6-ol-1 / 6-octen-1-ol, 3,7-dimethyl- / 6-octen-1-ol, 3,7-dimethyl-, (+/-)- / beta-citronellol / cephrol / citronellol / citronellol 950 / citronellol, DL- / dihydrogeraniol / DL-citronellol / FEMA No 2309 / FEMA No 2980 / rodinol	(CAS-No.) 106-22-9	< 0.1	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1B, H317
2,2,5-Trimethyl-5-pentylcyclopentanone		(CAS-No.) 65443-14-3	0.0014 – 0.0035	Flam. Liq. 4, H227
2,4-Dimethyl-3-cyclohexen-1-carboxaldehyde		(CAS-No.) 68039-49-6	< 0.1	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Skin Sens. 1B, H317
Dimethylcyclohex-3-ene-1-carbaldehyde (isomer mixture)		(CAS-No.) 68737-61-1	< 0.1	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Skin Sens. 1B, H317
ALPHA PINENE	2,6,6-trimethylbicyclo-(3,1,1)-2-heptene / 2,6,6-trimethylbicyclo(3.1.1)-2-hept-2-ene / 2,6,6-trimethylbicyclo(3.1.1)-2-heptene / 2,6,6-trimethylbicyclo(3.1.1)hept-2-ene / 2,6,6-trimethyldicyclo(3.1.1)-2-heptene / 2-pinene / acintene A / alpha-pinene (FCC) / australene / bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl- / FEMA No 2902 / pin-2(3)-ene / pinen alpha / pinene (=alpha-pinene) / pinene, pract. (=alpha-pinene)	(CAS-No.) 80-56-8	0.0007 – 0.0014	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304
LAURYL ALCOHOL		(CAS-No.) 112-53-8	< 0.1	Eye Irrit. 2A, H319
Tetrahydro-4-methyl-2-(2-methylpropen-1-yl)pyran	2H-pyran, tetrahydro-4-methyl-2-(2-methyl-1-propenyl)- / 2H-pyran, tetrahydro-4-methyl-2-(2-methylpropenyl)- / pyran, 2-(2-methyl-1-propenyl)-4-methyltetrahydro- / pyran, tetrahydro-2-(2-methyl-1-propenyl)-4-methyl- / pyran, tetrahydro-4-methyl-2-(2-methylpropenyl)- / rosenoxide / rosoxide / tetrahydro-2-(2-methyl-1-propenyl)-4-methylpyran / tetrahydro-4-methyl-2-(2-methylpropen-1-yl)pyran	(CAS-No.) 16409-43-1	0.00014 – 0.0007	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Repr. 2, H361
1-(5,5-Dimethyl-1-cyclohexen-1-yl)pent-4-en-1-one		(CAS-No.) 56973-85-4	< 0.1	Skin Sens. 1B, H317
Butylated hydroxytoluene		(CAS-No.) 128-37-0	< 0.1	Not classified
GERANIOL		(CAS-No.) 106-24-1	< 0.1	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317
Phenylacetaldehyde	acetaldehyde, phenyl- / alpha-tolualdehyde / alpha-toluic aldehyde / benzeneacetaldehyde / FEMA No.2874 / hyacinthin / PAA (=phenylacetaldehyde) / phenylacetaldehyde / phenylacetic aldehyde / phenylethanal	(CAS-No.) 122-78-1	< 0.1	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317
LIMONENE		(CAS-No.) 138-86-3	< 0.1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304
CITRAL		(CAS-No.) 5392-40-5	< 0.1	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1B, H317

Full text of hazard classes and H-statements : see section 16

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
- First-aid measures after skin contact : Wash skin with plenty of water.
- First-aid measures after eye contact : Rinse eyes with water as a precaution.

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First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

### 4.2. Most important symptoms and effects (acute and delayed)

No additional information available

### 4.3. Immediate medical attention and special treatment, if necessary

Other medical advice or treatment : Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

### 5.2. Unsuitable extinguishing media

No additional information available

### 5.3. Specific hazards arising from the hazardous product

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

### 5.4. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

### 6.2. Methods and materials for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.

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

### 6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.

Hygiene measures : 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 : Store in a well-ventilated place. Keep cool.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### BENZYL ACETATE (140-11-4)

##### USA - ACGIH - Occupational Exposure Limits

Local name	Benzyl acetate
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ACGIH TWA (ppm)	10 ppm
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Remark (ACGIH)	URT irr
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#### Butylated hydroxytoluene (128-37-0)

##### USA - ACGIH - Occupational Exposure Limits

Local name	Butylated hydroxytoluene
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ACGIH TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
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Remark (ACGIH)	URT irr
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#### CITRAL (5392-40-5)

##### USA - ACGIH - Occupational Exposure Limits

Local name	Citral
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ACGIH TWA (ppm)	5 ppm
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### BENZYL ACETATE (140-11-4)

Remark (ACGIH)	Body weight eff; URT irr; eye dam; Skin; DSEN; A4 (Not classifiable as a Human Carcinogen: Agents which cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of a lack of data. In vitro or animal studies do not provide indications of carcinogenicity which are sufficient to classify the agent into one of the other categories)
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### BETA PINENE (127-91-3)

#### USA - ACGIH - Occupational Exposure Limits

ACGIH TWA (ppm)	20 ppm
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### ALPHA PINENE (80-56-8)

#### USA - ACGIH - Occupational Exposure Limits

ACGIH TWA (ppm)	20 ppm
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### 8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Protective gloves

#### Eye protection:

Safety glasses

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

#### Personal protective equipment symbol(s):



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: No data available
Color	: Mixture contains one or more component(s) which have the following colour(s): White Colourless to light amber Colourless Colourless to light yellow Colourless to white On exposure to light: turns yellow On exposure to air: turns yellow White to yellow
Odor	: There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour: Floral odour Aromatic odour Mild odour Fruity odour Characteristic odour Sweet odour Lemon odour Pleasant odour Strong odour Pine odour
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 100 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable



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Vapor pressure	: No data available
Vapor pressure at 50 °C	: No data available
Relative density	: 0.953 (0.943 – 0.963)
Solubility	: Insoluble.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Explosion limits	: No data available

### 9.2. Other information

Refractive index	: 1.47 (1.460 – 1.480)
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## SECTION 10: Stability and reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: None under recommended storage and handling conditions (see section 7).
Incompatible materials	: No additional information available
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hardening time:	: No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

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

<b>Trichloromethyl phenyl carbinyl acetate (90-17-5)</b>	
LD50 oral	2000 – 5000 mg/kg body weight (Mouse, Male / female, Experimental value, Oral, 7 day(s))
LD50 dermal rabbit	> 2000 mg/kg (OECD 402: Acute Dermal Toxicity, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 5 mg/l air (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s))
ATE CA (oral)	2000 mg/kg body weight
<b>ETHYL VANILLIN (121-32-4)</b>	
LD50 oral	3000 mg/kg body weight
ATE CA (oral)	3000 mg/kg body weight
<b>PHENYLETHYL SALICYLATE (87-22-9)</b>	
LD50 oral	2500 mg/kg body weight
ATE CA (oral)	2500 mg/kg body weight
<b>DIOCTYL ADIPATE (103-23-1)</b>	
LD50 oral rat	> 20000 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral)
LC50 Inhalation - Rat	> 5.7 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol))
<b>BENZYL ACETATE (140-11-4)</b>	
LD50 oral rat	> 2000 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 15 day(s))
LD50 oral	2490 mg/kg body weight
LD50 dermal rabbit	> 5000 mg/kg body weight (Rabbit, Experimental value, Dermal, 14 day(s))
ATE CA (oral)	2490 mg/kg body weight
<b>GERANIUM OIL (8000-46-2)</b>	
LD50 oral	4584 mg/kg body weight
LD50 dermal	2500 mg/kg body weight
ATE CA (oral)	4584 mg/kg body weight
ATE CA (Dermal)	2500 mg/kg body weight
<b>PHENYLETHYL ALCOHOL (60-12-8)</b>	
LD50 oral rat	1603 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 oral	1610 mg/kg body weight

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<b>PHENYLETHYL ALCOHOL (60-12-8)</b>	
LD50 dermal rabbit	2535 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))
LD50 dermal	2500 mg/kg body weight
LC50 Inhalation - Rat	> 4.63 mg/l (4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s))
ATE CA (oral)	1603 mg/kg body weight
ATE CA (Dermal)	2500 mg/kg body weight
<b>ORANGE OIL (8028-48-6)</b>	
LD50 oral rat	> 5000 mg/kg body weight (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rabbit	> 5000 mg/kg body weight (Rabbit; Experimental value; Equivalent or similar to OECD 402)
<b>LINALYL ACETATE (115-95-7)</b>	
LD50 oral rat	> 9000 mg/kg body weight (BASF test, Rat, Male / female, Experimental value, Oral, 7 day(s))
LD50 dermal rabbit	> 5000 mg/kg body weight (Rabbit, Experimental value, Dermal, 14 day(s))
<b>PETITGRAIN OIL (8014-17-3)</b>	
LD50 oral	4087 mg/kg body weight
ATE CA (oral)	4087 mg/kg body weight
<b>GERANYL ACETATE (105-87-3)</b>	
LD50 oral rat	6300 mg/kg (Rat, Oral)
ATE CA (oral)	6300 mg/kg body weight
<b>LINALOOL (78-70-6)</b>	
LD50 oral rat	2790 mg/kg (Rat)
LD50 oral	2790 mg/kg body weight
LD50 dermal rat	5610 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
ATE CA (oral)	2790 mg/kg body weight
ATE CA (Dermal)	5610 mg/kg body weight
<b>PIPERONAL (120-57-0)</b>	
LD50 oral	2700 mg/kg body weight
ATE CA (oral)	2700 mg/kg body weight
<b>Phenylacetic acid (103-82-2)</b>	
LD50 oral	2250 mg/kg body weight
ATE CA (oral)	2250 mg/kg body weight
<b>METHYL ANTHRANILATE (134-20-3)</b>	
LD50 oral	2780 mg/kg body weight
ATE CA (oral)	2780 mg/kg body weight
<b>NEROL (106-25-2)</b>	
LD50 oral rat	4500 mg/kg (Rat, Oral)
LD50 oral	4500 mg/kg body weight
LD50 dermal rabbit	> 5000 mg/kg (Rabbit, Dermal)
ATE CA (oral)	4500 mg/kg body weight
<b>PHENYLETHYL ACETATE (103-45-7)</b>	
LD50 oral	2500 mg/kg body weight
ATE CA (oral)	2500 mg/kg body weight
<b><math>\alpha</math>-Methylbenzyl alcohol (98-85-1)</b>	
LD50 oral	400 mg/kg body weight
LD50 dermal	3750 mg/kg body weight
ATE CA (oral)	400 mg/kg body weight
ATE CA (Dermal)	3750 mg/kg body weight
<b>Phenylacetaldehyde (122-78-1)</b>	
LD50 oral	1550 mg/kg body weight
LD50 dermal	2500 mg/kg body weight
ATE CA (oral)	1550 mg/kg body weight
ATE CA (Dermal)	2500 mg/kg body weight
<b>HYDROXYCITRONELLAL (107-75-5)</b>	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)

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<b>METHYL DIHYDROAJASMONATE (24851-98-7)</b>	
LD50 oral rat	> 5000 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit, Dermal)
<b>DELTA DAMASCONE (57378-68-4)</b>	
LD50 oral	1400 mg/kg body weight
ATE CA (oral)	1400 mg/kg body weight
<b>3,7-Dimethyl-1-octanol (106-21-8)</b>	
LD50 dermal	2400 mg/kg body weight
ATE CA (Dermal)	2400 mg/kg body weight
<b>GERANIOL (106-24-1)</b>	
LD50 oral rat	3600 mg/kg body weight (Rat; Experimental value)
LD50 oral	3600 mg/kg body weight
LD50 dermal rabbit	> 5000 mg/kg body weight (Rabbit; Experimental value)
ATE CA (oral)	3600 mg/kg body weight
<b>CITRAL (5392-40-5)</b>	
LD50 dermal	2250 mg/kg body weight
ATE CA (Dermal)	2250 mg/kg body weight
<b>2,4-Dimethyl-3-cyclohexen-1-carboxaldehyde (68039-49-6)</b>	
LD50 oral	3900 mg/kg body weight
ATE CA (oral)	3900 mg/kg body weight
<b>BETA PINENE (127-91-3)</b>	
LD50 oral rat	4700 mg/kg (Rat, Oral)
ATE CA (oral)	4700 mg/kg body weight
<b>CITRONELLOL (106-22-9)</b>	
LD50 oral rat	3450 mg/kg (Rat, Inconclusive, insufficient data, Oral)
LD50 oral	3450 mg/kg body weight
LD50 dermal rabbit	2650 mg/kg (Rabbit, Inconclusive, insufficient data, Dermal)
LD50 dermal	2650 mg/kg body weight
ATE CA (oral)	3450 mg/kg body weight
ATE CA (Dermal)	2650 mg/kg body weight
<b>ALPHA PINENE (80-56-8)</b>	
LD50 oral rat	> 500 mg/kg body weight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral, 01 day(s))
LD50 oral	500 mg/kg body weight
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Skin, 14 day(s))
ATE CA (oral)	500 mg/kg body weight
<b>GERANIOL (106-24-1)</b>	
LD50 oral	3600 mg/kg body weight
ATE CA (oral)	3600 mg/kg body weight
<b>Tetrahydro-4-methyl-2-(2-methylpropen-1-yl)pyran (16409-43-1)</b>	
LD50 oral	4300 mg/kg body weight
ATE CA (oral)	4300 mg/kg body weight
<b>Dimethylcyclohex-3-ene-1-carbaldehyde (isomer mixture) (68737-61-1)</b>	
LD50 oral	3600 mg/kg body weight
LD50 dermal	5000 mg/kg body weight
ATE CA (oral)	3600 mg/kg body weight
ATE CA (Dermal)	5000 mg/kg body weight
<b>CINNAMIC ALCOHOL (104-54-1)</b>	
LD50 oral	2000 mg/kg body weight
ATE CA (oral)	2000 mg/kg body weight
<b>CITRONELLOL (106-22-9)</b>	
LD50 oral rat	3450 mg/kg (Rat, Inconclusive, insufficient data, Oral)
LD50 oral	3450 mg/kg body weight
LD50 dermal rabbit	2650 mg/kg (Rabbit, Inconclusive, insufficient data, Dermal)
LD50 dermal	2650 mg/kg body weight
ATE CA (oral)	3450 mg/kg body weight

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<b>CITRONELLOL (106-22-9)</b>	
ATE CA (Dermal)	2650 mg/kg body weight
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.

STOT-single exposure : Not classified

: Not classified

STOT-repeated exposure

Aspiration hazard

: Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

<b>Trichloromethyl phenyl carbinyl acetate (90-17-5)</b>	
EC50 Daphnia 1	16.8 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
EC50 72h algae 1	3.4 mg/l (OECD 201: Alga, Growth Inhibition Test, Desmodesmus subspicatus, Static system, Fresh water, Experimental value)
BCF fish 1	8 (Experimental value)
Partition coefficient n-octanol/water (Log Pow)	3.535 (Practical experience/observation, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Partition coefficient n-octanol/water (Log Koc)	2.748 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)

<b>DIOCTYL ADIPATE (103-23-1)</b>	
LC50 fish 1	54 – 150 mg/l (96 h, Salmo gairdneri, Static system)
EC50 Daphnia 1	> 500 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
EC50 72h algae 1	> 500 mg/l (DIN 38412-9, Scenedesmus subspicatus, Static system, Fresh water, Experimental value, Biomass)
BCF fish 1	27 (Other, 28 day(s), Lepomis macrochirus, Flow-through system, Fresh water, Experimental value)
BCF fish 2	3.162 (Calculated value)
Partition coefficient n-octanol/water (Log Pow)	8.1 (Calculated)
Partition coefficient n-octanol/water (Log Koc)	4.687 (log Koc, SRC PCKOCWIN v1.66, Calculated value)

<b>BENZYL ACETATE (140-11-4)</b>	
LC50 fish 1	4 mg/l (ASTM E729-80, 96 h, Oryzias latipes, Flow-through system, Fresh water, Experimental value)

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<b>BENZYL ACETATE (140-11-4)</b>	
EC50 Daphnia 1	17 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, GLP)
BCF fish 1	8 (Pisces, Flow-through system, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	1.96 (Experimental value, 25 °C)
Partition coefficient n-octanol/water (Log Koc)	2.4 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)
<b>PHENYLETHYL ALCOHOL (60-12-8)</b>	
LC50 fish 1	215 – 464 mg/l (DIN 38412: German standard methods for the examination of water, waste water and sludge, 96 h, Leuciscus idus, Static system, Fresh water, Experimental value, Lethal)
EC50 Daphnia 1	287.17 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 (algae)	1300 mg/l (DIN 38412: German standard methods for the examination of water, waste water and sludge, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)
BCF fish 1	2.036 l/kg (BCFBFAF v3.01, Estimated value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	1.3 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 20 °C)
Partition coefficient n-octanol/water (Log Koc)	1.5 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
<b>ORANGE OIL (8028-48-6)</b>	
LC50 fish 1	702 µg/l (LC50; Equivalent or similar to OECD 203; 96 h; Pimephales promelas; Flow-through system; Fresh water; Read-across)
EC50 Daphnia 1	0.67 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
BCF other aquatic organisms 1	32 – 395 (BCF; BCFWIN)
Partition coefficient n-octanol/water (Log Pow)	2.78 – 4.88 (QSAR; KOWWIN)
<b>LINALYL ACETATE (115-95-7)</b>	
LC50 fish 1	11 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Cyprinus carpio, Flow-through system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	59 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 (algae)	156.7 mg/l (DIN 38412-9, 96 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)
BCF fish 1	173.9 l/kg (BCFBFAF v3.00, Calculated value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	3.9 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Partition coefficient n-octanol/water (Log Koc)	2.71 (log Koc, PCKOCWIN v1.66, Calculated value)
<b>TERPINYL ACETATE (80-26-2)</b>	
ErC50 (algae)	6.9 – 8.1 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)
BCF fish 1	190.5 l/kg (BCFBFAF v3.01, Estimated value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	4.4 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 30 °C)
Partition coefficient n-octanol/water (Log Koc)	2.79 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Read-across, GLP)
<b>GERANYL ACETATE (105-87-3)</b>	
LC50 fish 1	68.12 mg/l (DIN 38412: German standard methods for the examination of water, waste water and sludge, 96 h, Leuciscus idus, Static system, Fresh water, Read-across)
EC50 Daphnia 1	14.1 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
EC50 72h algae 1	3.72 mg/l (OECD 201: Alga, Growth Inhibition Test, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)
BCF other aquatic organisms 1	1500 (Estimated value)
Partition coefficient n-octanol/water (Log Pow)	4.04 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method)
Partition coefficient n-octanol/water (Log Koc)	3.06 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
<b>LINALOOL (78-70-6)</b>	
LC50 fish 2	27.8 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Salmo gairdneri)
EC50 Daphnia 1	59 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna)

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<b>LINALOOL (78-70-6)</b>	
EC50 other aquatic organisms 1	≥ 100 mg/l (3 h; Activated sludge)
Partition coefficient n-octanol/water (Log Pow)	2.84 – 3.145
Threshold limit algae 1	88.3 mg/l (EC50; 96 h)

  

<b>PIPERONAL (120-57-0)</b>	
Partition coefficient n-octanol/water (Log Pow)	1.05

  

<b>NEROL (106-25-2)</b>	
LC50 fish 1	20.3 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	32.4 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 (algae)	9.54 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
Partition coefficient n-octanol/water (Log Pow)	3.47 (Experimental value)
Partition coefficient n-octanol/water (Log Koc)	1.9738 (log Koc, SRC PCKOCWIN v2.0, QSAR)

  

<b>Phenylacetaldehyde (122-78-1)</b>	
Partition coefficient n-octanol/water (Log Pow)	1.8

  

<b>HYDROXYCITRONELLAL (107-75-5)</b>	
Partition coefficient n-octanol/water (Log Pow)	2.11 (Estimated value)

  

<b>METHYL DIHYDROAJASMONATE (24851-98-7)</b>	
Partition coefficient n-octanol/water (Log Pow)	3 (Estimated value)

  

<b>GERANIOL (106-24-1)</b>	
LC50 fish 1	> 9.8 mg/l (LC50; 96 h)

  

<b>BETA PINENE (127-91-3)</b>	
LC50 fish 1	0.557 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Cyprinus carpio, Semi-static system, Fresh water, Weight of evidence, GLP)
EC50 Daphnia 1	1.248 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semi-static system, Fresh water, Weight of evidence, GLP)
ErC50 (algae)	0.826 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Weight of evidence, GLP)
BCF other aquatic organisms 1	1125 (BCFBAF v3.00, Fresh water, QSAR, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	4.425 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Partition coefficient n-octanol/water (Log Koc)	3.01 – 3.82 (log Koc, Calculated value)

  

<b>CITRONELLOL (106-22-9)</b>	
LC50 fish 1	14.66 mg/l (DIN 38412-15, 96 h, Leuciscus idus, Static system, Fresh water, Experimental value)
EC50 Daphnia 1	17.48 mg/l (48 h, Daphnia magna, Static system, Fresh water, Experimental value)
EC50 72h algae 1	2.4 mg/l (Static system, Fresh water, Experimental value)
BCF fish 1	82.59 l/kg (BCFBAF v3.00, Estimated value)
Partition coefficient n-octanol/water (Log Pow)	3.41 (Practical experience/observation, EU Method A.8: Partition Coefficient, 25 °C)
Partition coefficient n-octanol/water (Log Koc)	1.85 (log Koc, EPIWIN 2.00, Estimated value)

  

<b>ALPHA PINENE (80-56-8)</b>	
LC50 fish 1	0.303 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	0.475 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, Locomotor effect)
BCF other aquatic organisms 1	1233.1 – 1248 l/kg (BCFBAF v3.01, Read-across, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	4.487 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
Partition coefficient n-octanol/water (Log Koc)	3.009 – 3.853 (log Koc, SRC PCKOCWIN v2.0, Calculated value)

  

<b>Tetrahydro-4-methyl-2-(2-methylpropen-1-yl)pyran (16409-43-1)</b>	
LC50 fish 1	77.6 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value)
EC50 Daphnia 1	33.2 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
ErC50 (algae)	79.7 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value)
BCF fish 1	107 l/kg (Estimated value)

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<b>Tetrahydro-4-methyl-2-(2-methylpropen-1-yl)pyran (16409-43-1)</b>	
Partition coefficient n-octanol/water (Log Pow)	3.3 (Practical experience/observation, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 23 °C)
Partition coefficient n-octanol/water (Log Koc)	2.81 (log Koc, Estimated value)
<b>CINNAMIC ALCOHOL (104-54-1)</b>	
LC50 fish 1	9 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Experimental value, Lethal)
EC50 Daphnia 1	3.21 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
EC50 72h algae 1	31.6 mg/l (OECD 201: Alga, Growth Inhibition Test, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Growth rate)
BCF fish 1	4.989 l/kg (BCFBAF v3.01, Estimated value)
Partition coefficient n-octanol/water (Log Pow)	1.636 (Practical experience/observation, 27 °C)
Partition coefficient n-octanol/water (Log Koc)	1.958 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
<b>CITRONELLOL (106-22-9)</b>	
LC50 fish 1	14.66 mg/l (DIN 38412-15, 96 h, Leuciscus idus, Static system, Fresh water, Experimental value)
EC50 Daphnia 1	17.48 mg/l (48 h, Daphnia magna, Static system, Fresh water, Experimental value)
EC50 72h algae 1	2.4 mg/l (Static system, Fresh water, Experimental value)
BCF fish 1	82.59 l/kg (BCFBAF v3.00, Estimated value)
Partition coefficient n-octanol/water (Log Pow)	3.41 (Practical experience/observation, EU Method A.8: Partition Coefficient, 25 °C)
Partition coefficient n-octanol/water (Log Koc)	1.85 (log Koc, EPIWIN 2.00, Estimated value)
<b>12.2. Persistence and degradability</b>	
<b>Trichloromethyl phenyl carbinyl acetate (90-17-5)</b>	
Persistence and degradability	Readily biodegradable in water.
<b>DIOCTYL ADIPATE (103-23-1)</b>	
Persistence and degradability	Readily biodegradable in water.
<b>BENZYL ACETATE (140-11-4)</b>	
Persistence and degradability	Readily biodegradable in water.
<b>PHENYLETHYL ALCOHOL (60-12-8)</b>	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.45 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	2.5 g O <sub>2</sub> /g substance
ThOD	2.6 g O <sub>2</sub> /g substance
<b>LINALYL ACETATE (115-95-7)</b>	
Persistence and degradability	Readily biodegradable in water.
<b>TERPINYL ACETATE (80-26-2)</b>	
Persistence and degradability	Readily biodegradable in water.
<b>GERANYL ACETATE (105-87-3)</b>	
Persistence and degradability	Readily biodegradable in water.
ThOD	2.6 g O <sub>2</sub> /g substance
<b>LINALOOL (78-70-6)</b>	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.531 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	2.808 g O <sub>2</sub> /g substance
<b>PIPERONAL (120-57-0)</b>	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
ThOD	1.71 g O <sub>2</sub> /g substance
<b>NEROL (106-25-2)</b>	
Persistence and degradability	Readily biodegradable in water.
<b>Phenylacetaldehyde (122-78-1)</b>	
Persistence and degradability	Not readily biodegradable in water.
<b>HYDROXYCITRONELLAL (107-75-5)</b>	
Persistence and degradability	Readily biodegradable in water.
Chemical oxygen demand (COD)	2.65 g O <sub>2</sub> /g substance

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<b>METHYL DIHYDROAJASMONATE (24851-98-7)</b>	
Persistence and degradability	Readily biodegradable in water.
<b>GERANIOL (106-24-1)</b>	
Persistence and degradability	Readily biodegradable in water.
ThOD	2.9 g O <sub>2</sub> /g substance
<b>BETA PINENE (127-91-3)</b>	
Persistence and degradability	Readily biodegradable in water.
<b>CITRONELLOL (106-22-9)</b>	
Persistence and degradability	Readily biodegradable in water.
Chemical oxygen demand (COD)	2.05 g O <sub>2</sub> /g substance
ThOD	2.961 g O <sub>2</sub> /g substance
<b>ALPHA PINENE (80-56-8)</b>	
Persistence and degradability	Readily biodegradable in water.
<b>Tetrahydro-4-methyl-2-(2-methylpropen-1-yl)pyran (16409-43-1)</b>	
Persistence and degradability	Readily biodegradable in water.
ThOD	2.9 g O <sub>2</sub> /g substance
<b>CINNAMIC ALCOHOL (104-54-1)</b>	
Persistence and degradability	Readily biodegradable in water.
<b>CITRONELLOL (106-22-9)</b>	
Persistence and degradability	Readily biodegradable in water.
Chemical oxygen demand (COD)	2.05 g O <sub>2</sub> /g substance
ThOD	2.961 g O <sub>2</sub> /g substance
<b>12.3. Bioaccumulative potential</b>	
<b>Trichloromethyl phenyl carbinyl acetate (90-17-5)</b>	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
BCF fish 1	8 (Experimental value)
Partition coefficient n-octanol/water (Log Pow)	3.535 (Practical experience/observation, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Partition coefficient n-octanol/water (Log Koc)	2.748 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
<b>DIOCTYL ADIPATE (103-23-1)</b>	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
BCF fish 1	27 (Other, 28 day(s), Lepomis macrochirus, Flow-through system, Fresh water, Experimental value)
BCF fish 2	3.162 (Calculated value)
Partition coefficient n-octanol/water (Log Pow)	8.1 (Calculated)
Partition coefficient n-octanol/water (Log Koc)	4.687 (log Koc, SRC PCKOCWIN v1.66, Calculated value)
<b>BENZYL ACETATE (140-11-4)</b>	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
BCF fish 1	8 (Pisces, Flow-through system, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	1.96 (Experimental value, 25 °C)
Partition coefficient n-octanol/water (Log Koc)	2.4 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)
<b>PHENYLETHYL ALCOHOL (60-12-8)</b>	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
BCF fish 1	2.036 l/kg (BCFBAF v3.01, Estimated value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	1.3 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 20 °C)
Partition coefficient n-octanol/water (Log Koc)	1.5 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
<b>ORANGE OIL (8028-48-6)</b>	
BCF other aquatic organisms 1	32 – 395 (BCF; BCFWIN)
Partition coefficient n-octanol/water (Log Pow)	2.78 – 4.88 (QSAR; KOWWIN)
<b>LINALYL ACETATE (115-95-7)</b>	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
BCF fish 1	173.9 l/kg (BCFBAF v3.00, Calculated value, Fresh weight)



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<b>LINALYL ACETATE (115-95-7)</b>	
Partition coefficient n-octanol/water (Log Pow)	3.9 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Partition coefficient n-octanol/water (Log Koc)	2.71 (log Koc, PCKOCWIN v1.66, Calculated value)
<b>TERPINYL ACETATE (80-26-2)</b>	
Bioaccumulative potential	Potential for bioaccumulation ( $4 \geq \text{Log Kow} \leq 5$ ).
BCF fish 1	190.5 l/kg (BCFBAF v3.01, Estimated value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	4.4 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 30 °C)
Partition coefficient n-octanol/water (Log Koc)	2.79 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Read-across, GLP)
<b>GERANYL ACETATE (105-87-3)</b>	
Bioaccumulative potential	Potential for bioaccumulation ( $4 \geq \text{Log Kow} \leq 5$ ).
BCF other aquatic organisms 1	1500 (Estimated value)
Partition coefficient n-octanol/water (Log Pow)	4.04 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method)
Partition coefficient n-octanol/water (Log Koc)	3.06 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
<b>LINALOOL (78-70-6)</b>	
Bioaccumulative potential	Bioaccumable.
Partition coefficient n-octanol/water (Log Pow)	2.84 – 3.145
<b>PIPERONAL (120-57-0)</b>	
Bioaccumulative potential	Low potential for bioaccumulation ( $\text{Log Kow} < 4$ ).
Partition coefficient n-octanol/water (Log Pow)	1.05
<b>NEROL (106-25-2)</b>	
Bioaccumulative potential	Low potential for bioaccumulation ( $\text{Log Kow} < 4$ ).
Partition coefficient n-octanol/water (Log Pow)	3.47 (Experimental value)
Partition coefficient n-octanol/water (Log Koc)	1.9738 (log Koc, SRC PCKOCWIN v2.0, QSAR)
<b>Phenylacetaldehyde (122-78-1)</b>	
Bioaccumulative potential	Low potential for bioaccumulation ( $\text{Log Kow} < 4$ ).
Partition coefficient n-octanol/water (Log Pow)	1.8
<b>HYDROXYCITRONELLAL (107-75-5)</b>	
Bioaccumulative potential	Low potential for bioaccumulation ( $\text{Log Kow} < 4$ ).
Partition coefficient n-octanol/water (Log Pow)	2.11 (Estimated value)
<b>METHYL DIHYDROAJASMONATE (24851-98-7)</b>	
Partition coefficient n-octanol/water (Log Pow)	3 (Estimated value)
<b>GERANIOL (106-24-1)</b>	
Bioaccumulative potential	No bioaccumulation data available.
<b>BETA PINENE (127-91-3)</b>	
Bioaccumulative potential	Potential for bioaccumulation ( $500 \leq \text{BCF} \leq 5000$ ).
BCF other aquatic organisms 1	1125 (BCFBAF v3.00, Fresh water, QSAR, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	4.425 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Partition coefficient n-octanol/water (Log Koc)	3.01 – 3.82 (log Koc, Calculated value)
<b>CITRONELLOL (106-22-9)</b>	
Bioaccumulative potential	Low potential for bioaccumulation ( $\text{BCF} < 500$ ).
BCF fish 1	82.59 l/kg (BCFBAF v3.00, Estimated value)
Partition coefficient n-octanol/water (Log Pow)	3.41 (Practical experience/observation, EU Method A.8: Partition Coefficient, 25 °C)
Partition coefficient n-octanol/water (Log Koc)	1.85 (log Koc, EPIWIN 2.00, Estimated value)
<b>ALPHA PINENE (80-56-8)</b>	
Bioaccumulative potential	Potential for bioaccumulation ( $500 \leq \text{BCF} \leq 5000$ ).
BCF other aquatic organisms 1	1233.1 – 1248 l/kg (BCFBAF v3.01, Read-across, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	4.487 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
Partition coefficient n-octanol/water (Log Koc)	3.009 – 3.853 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
<b>Tetrahydro-4-methyl-2-(2-methylpropen-1-yl)pyran (16409-43-1)</b>	
Bioaccumulative potential	Low potential for bioaccumulation ( $\text{Log Kow} < 4$ ).
BCF fish 1	107 l/kg (Estimated value)
Partition coefficient n-octanol/water (Log Pow)	3.3 (Practical experience/observation, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 23 °C)
Partition coefficient n-octanol/water (Log Koc)	2.81 (log Koc, Estimated value)

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<b>CINNAMIC ALCOHOL (104-54-1)</b>	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
BCF fish 1	4.989 l/kg (BCFBAF v3.01, Estimated value)
Partition coefficient n-octanol/water (Log Pow)	1.636 (Practical experience/observation, 27 °C)
Partition coefficient n-octanol/water (Log Koc)	1.958 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
<b>CITRONELLOL (106-22-9)</b>	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
BCF fish 1	82.59 l/kg (BCFBAF v3.00, Estimated value)
Partition coefficient n-octanol/water (Log Pow)	3.41 (Practical experience/observation, EU Method A.8: Partition Coefficient, 25 °C)
Partition coefficient n-octanol/water (Log Koc)	1.85 (log Koc, EPIWIN 2.00, Estimated value)
<b>12.4. Mobility in soil</b>	
<b>Trichloromethyl phenyl carbiny acetate (90-17-5)</b>	
Ecology - soil	Low potential for adsorption in soil.
Partition coefficient n-octanol/water (Log Koc)	2.748 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
Partition coefficient n-octanol/water (Log Pow)	3.535 (Practical experience/observation, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
<b>DIOCTYL ADIPATE (103-23-1)</b>	
Ecology - soil	Low potential for mobility in soil.
Partition coefficient n-octanol/water (Log Koc)	4.687 (log Koc, SRC PCKOCWIN v1.66, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	8.1 (Calculated)
<b>BENZYL ACETATE (140-11-4)</b>	
Ecology - soil	Low potential for adsorption in soil.
Partition coefficient n-octanol/water (Log Koc)	2.4 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)
Partition coefficient n-octanol/water (Log Pow)	1.96 (Experimental value, 25 °C)
<b>PHENYLETHYL ALCOHOL (60-12-8)</b>	
Surface tension	59.7 mN/m (20 °C, 1 g/l, OECD 115: Surface Tension of Aqueous Solutions)
Ecology - soil	Highly mobile in soil.
Partition coefficient n-octanol/water (Log Koc)	1.5 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
Partition coefficient n-octanol/water (Log Pow)	1.3 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 20 °C)
<b>ORANGE OIL (8028-48-6)</b>	
Partition coefficient n-octanol/water (Log Pow)	2.78 – 4.88 (QSAR; KOWWIN)
<b>LINALYL ACETATE (115-95-7)</b>	
Ecology - soil	Low potential for adsorption in soil.
Partition coefficient n-octanol/water (Log Koc)	2.71 (log Koc, PCKOCWIN v1.66, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	3.9 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
<b>TERPINYL ACETATE (80-26-2)</b>	
Ecology - soil	Low potential for adsorption in soil.
Partition coefficient n-octanol/water (Log Koc)	2.79 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Read-across, GLP)
Partition coefficient n-octanol/water (Log Pow)	4.4 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 30 °C)
<b>GERANYL ACETATE (105-87-3)</b>	
Ecology - soil	Low potential for mobility in soil.
Partition coefficient n-octanol/water (Log Koc)	3.06 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	4.04 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method)
<b>LINALOOL (78-70-6)</b>	
Partition coefficient n-octanol/water (Log Pow)	2.84 – 3.145
<b>PIPERONAL (120-57-0)</b>	
Partition coefficient n-octanol/water (Log Pow)	1.05
<b>NEROL (106-25-2)</b>	
Ecology - soil	Highly mobile in soil.
Partition coefficient n-octanol/water (Log Koc)	1.9738 (log Koc, SRC PCKOCWIN v2.0, QSAR)

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<b>NEROL (106-25-2)</b>	
Partition coefficient n-octanol/water (Log Pow)	3.47 (Experimental value)
<b>Phenylacetaldehyde (122-78-1)</b>	
Partition coefficient n-octanol/water (Log Pow)	1.8
<b>HYDROXYCITRONELLAL (107-75-5)</b>	
Partition coefficient n-octanol/water (Log Pow)	2.11 (Estimated value)
<b>METHYL DIHYDROAJASMONATE (24851-98-7)</b>	
Partition coefficient n-octanol/water (Log Pow)	3 (Estimated value)
<b>BETA PINENE (127-91-3)</b>	
Ecology - soil	Low potential for mobility in soil.
Partition coefficient n-octanol/water (Log Koc)	3.01 – 3.82 (log Koc, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	4.425 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
<b>CITRONELLOL (106-22-9)</b>	
Ecology - soil	Highly mobile in soil.
Partition coefficient n-octanol/water (Log Koc)	1.85 (log Koc, EPIWIN 2.00, Estimated value)
Partition coefficient n-octanol/water (Log Pow)	3.41 (Practical experience/observation, EU Method A.8: Partition Coefficient, 25 °C)
<b>ALPHA PINENE (80-56-8)</b>	
Ecology - soil	Low potential for mobility in soil. May be harmful to plant growth, blooming and fruit formation.
Partition coefficient n-octanol/water (Log Koc)	3.009 – 3.853 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	4.487 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
<b>Tetrahydro-4-methyl-2-(2-methylpropen-1-yl)pyran (16409-43-1)</b>	
Ecology - soil	Low potential for adsorption in soil.
Partition coefficient n-octanol/water (Log Koc)	2.81 (log Koc, Estimated value)
Partition coefficient n-octanol/water (Log Pow)	3.3 (Practical experience/observation, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 23 °C)
<b>CINNAMIC ALCOHOL (104-54-1)</b>	
Ecology - soil	Highly mobile in soil.
Partition coefficient n-octanol/water (Log Koc)	1.958 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
Partition coefficient n-octanol/water (Log Pow)	1.636 (Practical experience/observation, 27 °C)
<b>CITRONELLOL (106-22-9)</b>	
Ecology - soil	Highly mobile in soil.
Partition coefficient n-octanol/water (Log Koc)	1.85 (log Koc, EPIWIN 2.00, Estimated value)
Partition coefficient n-octanol/water (Log Pow)	3.41 (Practical experience/observation, EU Method A.8: Partition Coefficient, 25 °C)

### 12.5. Other adverse effects

Ozone : Not classified

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

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

## SECTION 14: Transport information

### 14.1. Basic shipping description

In accordance with TDG

#### Transportation of Dangerous Goods

Not regulated for transport

### 14.2. Transport information/DOT

#### Department of Transport

Not regulated for transport

### 14.3. Air and sea transport

#### IMDG

Not regulated for transport

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### IATA

Not regulated for transport

## SECTION 15: Regulatory information

### 15.1. National regulations

#### Trichloromethyl phenyl carbonyl acetate (90-17-5)

Listed on the Canadian DSL (Domestic Substances List)

#### ETHYL VANILLIN (121-32-4)

Listed on the Canadian DSL (Domestic Substances List)

#### PHENYLETHYL SALICYLATE (87-22-9)

Listed on the Canadian DSL (Domestic Substances List)

#### NONANAL (124-19-6)

Listed on the Canadian DSL (Domestic Substances List)

#### DIOCTYL ADIPATE (103-23-1)

Listed on the Canadian DSL (Domestic Substances List)

#### Oxacycloheptadec-10-ene-2-one (28645-51-4)

Listed on the Canadian DSL (Domestic Substances List)

#### BENZYL ACETATE (140-11-4)

Listed on the Canadian DSL (Domestic Substances List)

#### GERANIUM OIL (8000-46-2)

Listed on the Canadian DSL (Domestic Substances List)

#### PHENYLETHYL ALCOHOL (60-12-8)

Listed on the Canadian DSL (Domestic Substances List)

#### ORANGE OIL (8028-48-6)

Listed on the Canadian DSL (Domestic Substances List)

#### LINALYL ACETATE (115-95-7)

Listed on the Canadian DSL (Domestic Substances List)

#### TERPINYL ACETATE (80-26-2)

Listed on the Canadian DSL (Domestic Substances List)

#### PETITGRAIN OIL (8014-17-3)

Listed on the Canadian DSL (Domestic Substances List)

#### GERANYL ACETATE (105-87-3)

Listed on the Canadian DSL (Domestic Substances List)

#### LEMON OIL TERPENES (68917-33-9)

Listed on the Canadian DSL (Domestic Substances List)

#### LINALOOL (78-70-6)

Listed on the Canadian DSL (Domestic Substances List)

#### LAURYL ALCOHOL (112-53-8)

Listed on the Canadian DSL (Domestic Substances List)

#### PIPERONAL (120-57-0)

Listed on the Canadian DSL (Domestic Substances List)

#### Phenylacetic acid (103-82-2)

Listed on the Canadian DSL (Domestic Substances List)

#### METHYL ANTHRANILATE (134-20-3)

Listed on the Canadian DSL (Domestic Substances List)

#### MIMOSA ABSOLUTE (8031-03-6)

Listed on the Canadian DSL (Domestic Substances List)

#### NEROL (106-25-2)

Listed on the Canadian DSL (Domestic Substances List)

#### PHENYLETHYL ACETATE (103-45-7)

Listed on the Canadian DSL (Domestic Substances List)

#### $\alpha$ -Methylbenzyl alcohol (98-85-1)

Listed on the Canadian DSL (Domestic Substances List)

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<b>ROSE ABSOLUTE (8007-01-0)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>GUAIAACWOOD OIL (8016-23-7)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Phenylacetaldehyde (122-78-1)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Butylated hydroxytoluene (128-37-0)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Propyl phenethyl acetal (7493-57-4)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>HYDROXYCITRONELLAL (107-75-5)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>2,3-DIHYDRO-2,5-DIMETHYL-1 H-INDENE-2-METHANOL (285977-85-7)</b>
Listed on the Canadian DSL (Domestic Substances List)
Canada DSL & NDSL Flags   Substance was manufactured or imported after July 1, 1995
<b>METHYL DIHYDROAJASMONATE (24851-98-7)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>DELTA DAMASCONE (57378-68-4)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>3,7-Dimethyl-1-octanol (106-21-8)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta-γ-2-benzopyran (1222-05-5)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>2-Isobutyl-4-methyltetrahydro-2H-pyran-4-ol (63500-71-0)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>GERANIOL (106-24-1)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>DIHYDROFARNESOL (51411-24-6)</b>
Listed on the Canadian NDSL (Non-Domestic Substances List)
<b>CITRAL (5392-40-5)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>2,4-Dimethyl-3-cyclohexen-1-carboxaldehyde (68039-49-6)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>2,2,5-Trimethyl-5-pentylcyclopentanone (65443-14-3)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>BETA PINENE (127-91-3)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>CITRONELLOL (106-22-9)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>ALPHA PINENE (80-56-8)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>LIMONENE (138-86-3)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>1-(5,5-Dimethyl-1-cyclohexen-1-yl)pent-4-en-1-one (56973-85-4)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>GERANIOL (106-24-1)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Tetrahydro-4-methyl-2-(2-methylpropen-1-yl)pyran (16409-43-1)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Dimethylcyclohex-3-ene-1-carbaldehyde (isomer mixture) (68737-61-1)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>CINNAMIC ALCOHOL (104-54-1)</b>
Listed on the Canadian DSL (Domestic Substances List)

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### **CITRONELLOL (106-22-9)**

Listed on the Canadian DSL (Domestic Substances List)

### **DAMASCENIA 185 (N/A)**

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

## 15.2. International regulations

### **Trichloromethyl phenyl carbinyl acetate (90-17-5)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### **ETHYL VANILLIN (121-32-4)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### **PHENYLETHYL SALICYLATE (87-22-9)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### **NONANAL (124-19-6)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### **DIOCTYL ADIPATE (103-23-1)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### **Oxacycloheptadec-10-ene-2-one (28645-51-4)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### **BENZYL ACETATE (140-11-4)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### **GERANIUM OIL (8000-46-2)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### **PHENYLETHYL ALCOHOL (60-12-8)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### **ORANGE OIL (8028-48-6)**

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

### **LINALYL ACETATE (115-95-7)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### **TERPINYL ACETATE (80-26-2)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### **PETITGRAIN OIL (8014-17-3)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### **GERANYL ACETATE (105-87-3)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### **LEMON OIL TERPENES (68917-33-9)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### **LINALOOL (78-70-6)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### **LAURYL ALCOHOL (112-53-8)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### **PIPERONAL (120-57-0)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### **Phenylacetic acid (103-82-2)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### **METHYL ANTHRANILATE (134-20-3)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### **MIMOSA ABSOLUTE (8031-03-6)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### **NEROL (106-25-2)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### **PHENYLETHYL ACETATE (103-45-7)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### **$\alpha$ -Methylbenzyl alcohol (98-85-1)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

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<b>ROSE ABSOLUTE (8007-01-0)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>GUAIACWOOD OIL (8016-23-7)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>Phenylacetaldehyde (122-78-1)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>Butylated hydroxytoluene (128-37-0)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>Propyl phenethyl acetal (7493-57-4)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>HYDROXYCITRONELLAL (107-75-5)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>2,3-DIHYDRO-2,5-DIMETHYL-1 H-INDENE-2-METHANOL (285977-85-7)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>METHYL DIHYDROAJASMONATE (24851-98-7)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>DELTA DAMASCONE (57378-68-4)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>3,7-Dimethyl-1-octanol (106-21-8)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta-γ-2-benzopyran (1222-05-5)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>2-Isobutyl-4-methyltetrahydro-2H-pyran-4-ol (63500-71-0)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>GERANIOL (106-24-1)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>DIHYDROFARNESOL (51411-24-6)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>CITRAL (5392-40-5)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>2,4-Dimethyl-3-cyclohexen-1-carboxaldehyde (68039-49-6)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>2,2,5-Trimethyl-5-pentylcyclopentanone (65443-14-3)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>BETA PINENE (127-91-3)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>CITRONELLOL (106-22-9)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>ALPHA PINENE (80-56-8)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>LIMONENE (138-86-3)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>1-(5,5-Dimethyl-1-cyclohexen-1-yl)pent-4-en-1-one (56973-85-4)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>GERANIOL (106-24-1)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>Tetrahydro-4-methyl-2-(2-methylpropen-1-yl)pyran (16409-43-1)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>Dimethylcyclohex-3-ene-1-carbaldehyde (isomer mixture) (68737-61-1)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>CINNAMIC ALCOHOL (104-54-1)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory

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### CITRONELLOL (106-22-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### DAMASCENIA 185 (N/A)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

## SECTION 16: Other information

SDS Major/Minor : None

Issue date : 06/28/2021

Full text of H-phrases:

H226	Flammable liquid and vapor
H227	Combustible liquid
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
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
H320	Causes eye irritation
H361	Suspected of damaging fertility or the unborn child

SDS Canada (GHS)

*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.*